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## CONTENTS

The Early Recognition of Bleeding Lesions of the Gastro-Intestinal Tract	B. R. Kirklin, M. D., Rochester, Minn.	13
Experimental Atribine Therapy in Granuloma Inguinale	Alan Brown, M. D., Jacksonville	15
Pylonephritis: Recent Improvements in Treatment	James J. Nugent, M. D., Miami	18
A Young Doctor Looks at Socialized Medicine	Richard C. Cumming, M. D., Ocala	23
Syphilis: A Few General Considerations	W. E. Murphree, M. D., Gainesville	25
Low Back Pain	James M. Hoffman, M. D., Pensacola	30
Traumatic Surgery in a Small Hospital	George M. Zeagler, M. D., Palatka	31
Editorials: Medical Preparedness; Individualism in Medicine; Association Represented at U. S. P. Convention; Study to Evaluate Original Serologic Tests for Syphilis		36
Florida Section, Southeastern Surgical Congress		37
Correspondence		38
Births, Marriages and Deaths		38
State News Items		38
Component County Societies		42
Abstract Department		44
Advertisers' Notes		48
Woman's Auxiliary		50
Books Received		52
State and Sectional Meetings		54
Component Societies by Districts		55

### NEXT SESSIONS

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Florida Medical Association, Jacksonville, 1941  
Southern Medical Association, Louisville, Ky., November 12-15, 1940

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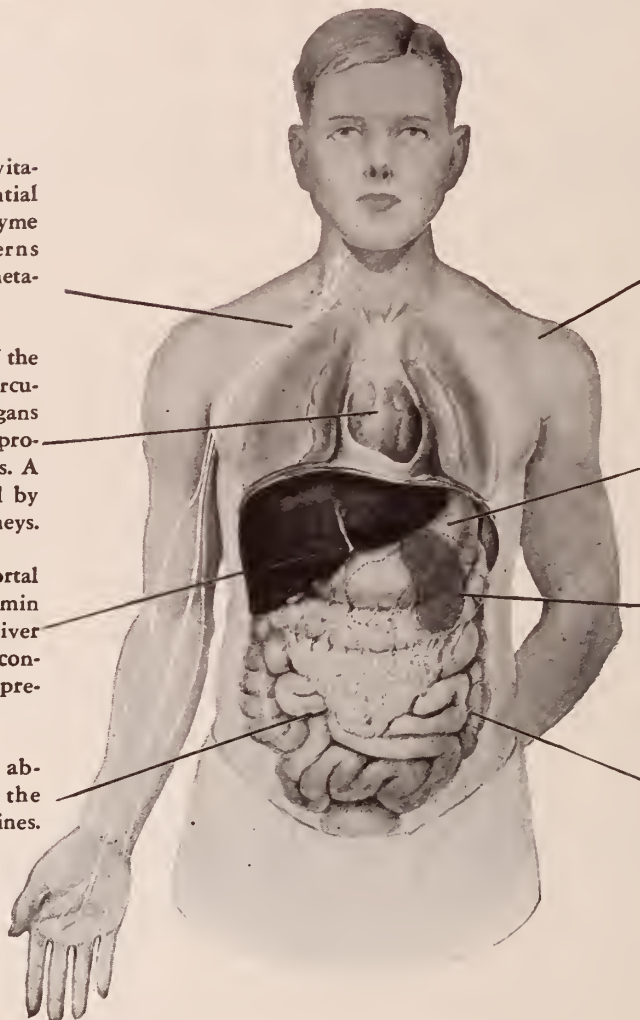
This page is the seventh of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the June 22 issue of The Journal of the American Medical Association.

(4) In nerve tissue, vitamin B<sub>1</sub> is an essential component of an enzyme system which governs one phase of the metabolic process.

(3) The remainder of the vitamin enters the circulation, the various organs removing thiamin in proportion to their needs. A large amount is used by heart, liver, and kidneys.

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(5) In skeletal muscle, vitamin B<sub>1</sub> also forms a part of an essential enzyme system governing a phase of the oxidative process.

(6) The secretory and motor function of the stomach may be affected by involvement of the gastric nervous mechanism as a result of B<sub>1</sub> deficiency. This may account for the anorexia in this condition.

(7) If excessive quantities of vitamin B<sub>1</sub> are ingested and absorbed, they are not stored for future use but are excreted by the kidneys; during periods of diuresis considerable quantities of the vitamin may be lost.

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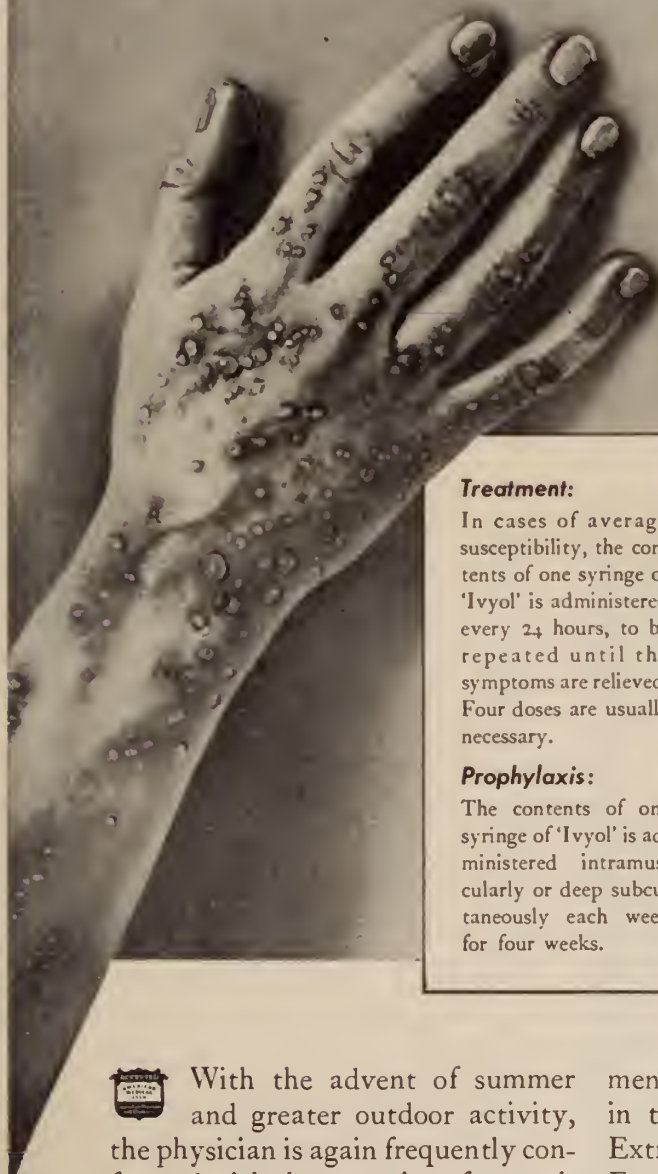
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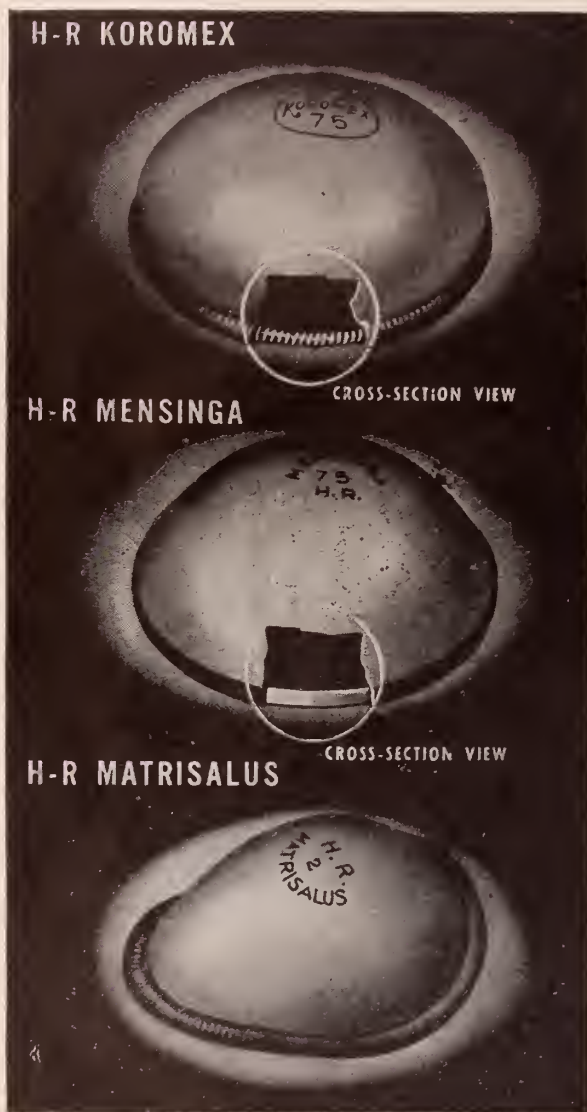
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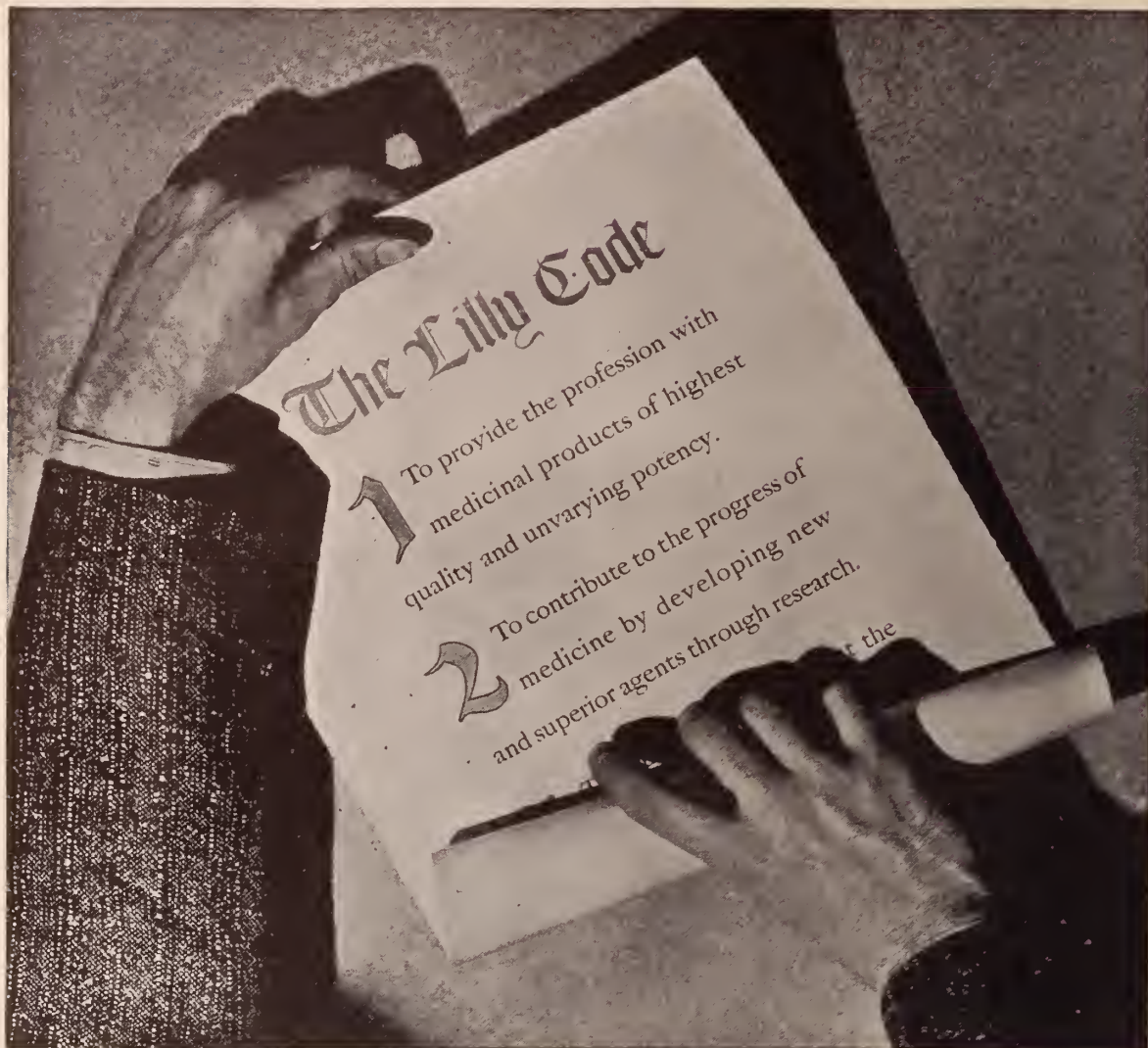
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## THE EARLY RECOGNITION OF BLEEDING LESIONS OF THE GASTRO-INTESTINAL TRACT

B. R. KIRKLIN, M. D.  
Rochester, Minnesota

Few of the many and varied manifestations of disease are more definitely indicative of potentially grave organic changes than bleeding from an internal organ, and the concern with which it is regarded, both by the patient and his physician, is fully warranted. When frank bleeding from the alimentary canal has occurred and the clinician has ascertained that the hemorrhage is not of orificial origin, he will try to determine its probable source from the history, physical signs, results of clinical tests and the subtle and indefinable indexes that he has learned from experience. Often, by his own methods alone, a capable clinician can adjudge the general situation and nature of the lesion with admirable accuracy. But even in such instances no one realizes more keenly than the clinician himself that his diagnosis is not complete without roentgenologic examination to confirm his opinion as to the nature of the lesion and to determine its exact site and size and the presence or absence of complicating factors. In the multitude of cases in which the clinical data are quite indecisive the diagnosis can scarcely be established without roentgenologic investigation. This consideration applies even more strongly to cases in which the lesion is small, the bleeding occult, and the symptoms vague and atypical. Furthermore, it is never safe to attribute bleeding from the bowel solely to hemorrhoids that are present, and examination with roentgen rays is requisite to determine whether or not there are also other lesions in the canal.

In case of hemorrhage from the canal the first thought usually is of peptic ulcer. This inference, although it should not be held to the exclusion of others, is logical, for peptic ulcer is known to be a common source of bleeding. Of the two principal varieties of peptic ulcer, the

gastric variety is encountered much less often. The fundamental roentgenologic sign of gastric ulcer is, of course, its barium-filled crater, the niche. In profile the niche appears usually as a smooth hemispherical prominence, 0.5 to 2.5 cm. in diameter, projecting beyond the line of the gastric lumen. In the face view, under a thin coating of barium on the mucosa, or by compressing the barium content of the stomach, the niche is manifested as a dense spot in the hazy shadow of the mucosal relief. Benign ulcer is characterized by nonelevation of its margin, accentuation and convergence of the rugae toward the crater, tenderness of the niche to pressure, and the presence of gastrospasm as manifested in curling of the lesser curvature and other distortions of the stomach.

Among bleeding lesions in the upper portion of the canal, duodenal ulcer stands first in frequency of incidence. Here the roentgen rays will rarely fail to establish the diagnosis by disclosing the niche or bulbar deformity, or both. In addition, roentgenologic examination furnishes valuable information as to the activity of the ulcer as indicated by the presence of a niche and irritability of the bulb.

Next to peptic ulcer, cancer in some part of the digestive tract especially the stomach, should be considered in canvassing possible sources of hemorrhage, because cancer is relatively common and its early diagnosis is of the highest importance. Ulcerating mucoid cancer, with its deep thrust into the gastric lumen, can hardly escape recognition with the roentgen rays. Infiltrating scirrhus cancer tends to encircle the stomach and produce funnel-like deformity, and the multiple shallow ulcers on its internal surface, when coated with barium, have the appearance of ground glass. Small ulcerating cancers have often been mistaken for simple ulcers but are characterized by a tumefied border, which, under pressure to thin out the opaque medium, appears as a transradiant halo around the dense, barium-filled crater. Finally to be considered in connection with gastric cancer are the malignant ulcers, which have no tumefied border but are likely to betray their malignancy by the irregularity of their craters and the absence of tenderness, spastic manifestation or distortion of neighboring rugae.

Head of Section on Roentgenology, The Mayo Clinic.  
Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940.

But, while it is reasonable to think first of peptic ulcer and gastric cancer as potential sources of hemorrhage, many other lesions must be taken into account, such as esophageal varices, ulcerative gastritis, duodenitis and benign tumors of the stomach. Furthermore, when hemorrhage is evidenced solely by the presence of blood in the stools, not only the foregoing affections but various intestinal diseases, such as cancer of the bowel, regional enteritis, intestinal tuberculosis, ulcerative colitis and intestinal polyps, must be kept in mind. Although some of the conditions enumerated are relatively rare, none can safely be excluded from consideration in any instance of bleeding from the canal.

Esophageal varices usually are secondary to cirrhosis of the liver. Profuse hematemesis often results from rupture of the distended vessels. Usually the lower portion of the esophagus is affected, and the veins are greatly dilated and nodular. With the roentgen rays the varices are depicted as bulbous shadow defects intruding into the lumen with deep crevices between. The picture strongly resembles that produced by polypoid new growths, but these rarely occur in the esophagus.

Benign intragastric neoplasms comprise myomas, fibromas, adenomas and mixed varieties. They seldom attain great size, may be single or multiple, and when few in number tend to become pedunculated. Ulceration is common but usually superficial. Hence bleeding is likely to be slight and occult but more or less continuous and sufficient to produce anemia, which is often the principal or sole clinical sign. With the roentgen rays the individual new growths appear as regularly rounded or ovoid transradiant spots in the barium shadow, and the general form of the stomach is not altered. Numerous multiple, closely packed polyadenomas have a characteristic resemblance, both macroscopically and roentgenologically, to convolutions of the brain. Especially to be remembered is the fact that apparently benign tumors of the stomach are often partly malignant.

Although not common, ulcerative gastritis cannot be omitted from consideration. The ulcerations, which are exceedingly numerous and small, can occasionally be discerned in the face view, but in the tangential view they are clearly

exhibited as fine, sharp, closely set, uniform serrations on the border of the barium shadow, and the picture is pathognomonic.

Duodenitis, a diffuse inflammation of the bulbar mucosa, with or without local shallow erosions, is met with rather frequently. It may occur in association with frank duodenal ulcer or independently and is a source of hemorrhage that may be severe. Roentgenologically it is marked by irritability and rapidly changing contours of the bulb, and by a coarsely and irregularly reticular mucosal pattern, due probably to puckering of the mucosa by spasm of its muscularis.

Cancer of the duodenum is extremely rare, and when the growth is situated near the bulb the roentgenologist is likely to attribute the deformity to duodenal ulcer. Cancer in the lower segments of the duodenum, however, produces a shadow defect like that caused by cancer of the stomach or large bowel, and at least the neoplastic nature of the lesion should be apparent. The benign tumors, such as the leiomyomas, are less rare and produce the characteristic regularly ovoid shadow defects. Notwithstanding the regular outline of the tumors, they frequently have shallow ulcerations that bleed more or less.

The incidence of bleeding lesions of the jejunum and ileum is low, and in the past their roentgenologic exhibition was not satisfactory because the opaque medium passes through so rapidly that only portions of the bowel are depicted at any one time and because the appearance of the mucosal relief varies so widely under normal conditions that abnormal states are hard to recognize. But patient and persistent investigators have shown that by observing the opaque meal at short intervals the entire intestine can be studied, and that alterations by disease, whether ulcerative or tumefactive, can be disclosed. Thus it is often possible to determine the site and extent of new growths and other affections. For example, regional enteritis, which is often localized to the terminal coils of ileum but may affect other portions of the small bowel or proximal segments of the colon, is characterized by narrowing of the intestinal lumen, stiffening of the involved segment, alterations of the mucosal relief and localized tenderness.

Scirrhus and mucoid cancers in the colon produce the same roentgenologic manifesta-



tions as in the stomach and rarely escape diagnosis. Tuberculous enteritis, with its tendency to affect predominantly the terminal ileac coil and proximal portion of the colon, is usually distinguishable by the resulting asymmetric and irregular narrowing of the intestinal lumen together with obliteration of the mucosal markings and hyperirritability of the bowel. Likewise ulcerative colitis can be identified confidently by the fact that the disease obviously has progressed proximalward from the rectum and by the diffuse narrowing and shortening of the lumen, often with local constrictions producing the appearance of a string of sausages. Benign new growths in the colon, like those in the stomach, are usually small, single or multiple, sometimes numerous, and commonly pedunculated. The tendency of these polyps to become malignant is well known. When large they occasionally are visible as ovoid shadow defects in the barium-filled bowel, but they can be disclosed more reliably by the double contrast method, that is to say, by withdrawing most of the barium enema and inflating the bowel with air.

Many other examples of hemorrhagic gastro-intestinal disease could be offered, but those here presented cover ulcerative, tumefactive and inflammatory lesions. Obviously, hemorrhage is not limited to particular diseases of the gastro-intestinal tract but is a sign common to practically all of them. Hence, in any instance of bleeding from the canal, whether gross or slight, patent or occult, neither clinician nor roentgenologist should draw immediate conclusions or try to establish any favorite diagnosis but should keep an open mind until examination is complete.

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#### HOW AIRPLANE FLIGHTS MAY RELIEVE A TYPE OF DEAFNESS

Deafness due to obstructions of the eustachian tubes has been reported as having been relieved by an airplane flight. *The Journal of the American Medical Association* for June 22 says in answer to a question as to how such relief might be obtained. "By increasing air pressure on descent," *The Journal* states, "air could be forced into closed eustachian tubes or the rarefied air on ascent could allow air under greater pressure in middle ears to escape through the eustachian tubes."

#### EXPERIMENTAL ATABRINE THERAPY IN GRANULOMA INGUINALE

ALAN BROWN, M. D.  
Jacksonville

Granuloma inguinale is a painful, disabling, fungating, granulomatous skin lesion, usually in the genital area and occurring almost entirely in the colored race. The etiological agent is the Donovan body, an intracellular ovoid body of uncertain classification.

The older treatment of granuloma inguinale is the intravenous injection of antimony and potassium tartrate, tartar emetic. In the past decade an improved antimony preparation, fuadin, has been introduced. Intolerance of some individuals to tartar emetic, the high cost of fuadin for the class of patients afflicted, and the tendency of granuloma inguinale to become antimony fast, leaves alternative or improved treatment to be desired.

The ovoid bodies found in the endothelial cells in granuloma inguinale, kala-azar, and oriental sore possess a similarity in appearance. The names of these organisms, Donovan bodies, Leishman-Donovan bodies, and Leishmania tropica, respectively, further suggest a relationship. Recently the University of Georgia clinic<sup>1</sup> group has, by bold human experimental inoculation, proved the Donovan body to be the etiological agent of granuloma inguinale. These men express the opinion that the Donovan body is a protozoan, which would place it in the same category as the plasmodia of malaria. In the past two years, cure of oriental sore by injecting a suspension of atabrine into the lesions has been reported in the French and Italian literature. The preceding facts and fancies suggested the experimental use of atabrine in granuloma inguinale.

This paper is in the nature of a preliminary report, as I have been unable to work up a large number of cases and sufficient time has not elapsed for a final evaluation.

#### EXPERIMENTAL WORK

The method described by Flarer<sup>2</sup> in the successful treatment of oriental sore was first used — injection of an atabrine solution into

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<sup>1</sup>Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30 and May 1, 1940.

the lesions of granuloma inguinale. A young colored male, unable to work because of six discrete granulomata of the groins, was injected with 0.05 grams of atabrine in 2 cc. of sterile water. The injection was made into the largest lesion only. Four days later the patient stated the lesions were less sore, allowing him to sleep better. All six lesions were drier and flatter. The next day all six lesions were injected with 0.2 grams of atabrine in 7 cc. of solution. Two days later the lesions were dry, being covered by a thin crust, and the patient said he felt able to resume work. A suspension of 0.2 grams of atabrine in 5 cc. of water was injected into all lesions. On the ninth day following the first injection he resumed work, trucking freight in a railroad freight house. Nine additional intralesion injections of 0.2 grams were given at intervals of two to six days. The lesions became flattened almost to the level of the surrounding skin and entirely dry but failed to improve further. As injections progressed it became increasingly hard to make the injections satisfactorily as the friable granulations would crack and the fluid escape from the lesions. The patient disappeared shortly after the last injection was made and hence I have been unable to follow the subsequent course of this case.

A more simple method of administration of atabrine than by injection was to be desired. As the original injection of the drug into a simple lesion had effected symptomatic relief and partial healing of other untreated lesions, the oral route was tried in three colored males with inguinal lesions. Two of these were intolerant to tartar emetic and one was antimony fast. All three patients showed improvement. The lesions became drier and paler and were less painful. The drug was stepped up from the customary one tablet of 0.1 gram of atabrine thrice daily for five days, to two and three tablets three times daily, and continued as long as six weeks in one patient who received 18 grams of atabrine. A second patient received 21 grams of atabrine in a period of 28 days. All patients showed yellow discoloration of conjunctivae and mucous membranes but no symptoms of intolerance were complained of except a "nasty taste in the mouth" by one

patient. After a rather rapid initial response to this mode of therapy the rate of improvement abated and then seemed to stop. A week after the discontinuation of atabrine by mouth the lesions regressed, becoming moist, red, and more painful. The oral administration of atabrine does not hold any hope as the sole treatment of granuloma inguinale, although it might be a desirable adjunct to atabrine treatment by other routes or to the injection of antimony preparations.

Because of the inability of the friable tissues of granuloma inguinale to retain the injection mass, cure was attempted by curetting the granuloma to a smooth base, followed by infiltration of the base with an atabrine suspension and dressing the wound with atabrine powder. This was done in one of the Negro males who had had a relapse after oral medication. He was dressed twice with atabrine powder and then voluntarily left the Duval County Hospital and was lost sight of for a period of time. The results of this procedure are evidenced by photographs taken 25 days after operation which show the inguinal lesion to be healed. The lesions in the sulcus formed by the adhesion of the penis to the scrotum are improved but show nodules of the granuloma recurring. This operation was performed too recently to evaluate the permanency of the result.

#### SUMMARY

The resemblance of the Donovan body of granuloma inguinale to the organisms of malaria and oriental sore and the therapeutic effectiveness of atabrine in the treatment of malaria and oriental sore suggested its therapeutic trial in granuloma inguinale. Atabrine orally led to improvement of the lesions of granuloma inguinale and abatement of symptoms but did not effect a cure. Injections of atabrine suspension in water into the lesions caused marked improvement of the lesions, but it became increasingly difficult to make the injections into the friable tissue. Curettage of the lesions, injection of the atabrine suspension into the bases, and dressing the surgical wounds with atabrine powder offer the best chance of cure by this method to date. This is but a preliminary report and does not



permit evaluation of this method as to final results.

The response of granuloma inguinale to atabrine therapy suggests that the Donovan body is a protozoan.

I wish to thank Dr. Aaron Oberdorfer for making colored photographs and Dr. J. N. Patterson of the State Board of Health for studies of the Donovan bodies in these cases.

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2. New Method of Treatment for Dermal Leishmaniasis, Presse Médicale **46**: 1388, Sept. 17, 1938.

417 St. James Bldg.

#### DISCUSSION

*Dr. Wiley M. Sams, Miami:*

Two months ago Doctor Brown sent a letter, enclosing an outline of his paper, and at that time he asked if I could line up a few cases of granuloma inguinale at the Dade County Hospital, and perhaps report the result of their treatment with atabrine. After approximately four or five years, I had gained the impression that among our Negro patients, this was a fairly common disease, and I thought I might be able to find five or six cases for treatment. Unfortunately, only two patients with this disease were present at the clinic during the past two months. I started by using the oral method of administration, and can report that they showed some improvement.

As yet, I have not had an opportunity to use the injection method, or to curet the lesions and then treat them with dry powder, or wet dressings locally. The latter method, however, I believe will yield the most satisfactory results. In event that such is the case, all improvement cannot, in my opinion, be attributed to the chemotherapy. In the past, both in the North and since I have been in Florida, I have treated granuloma inguinale by curettage, actual cautery, and frequently by curettage and the application of acid nitrite of mercury to the base of the ulcer, and have usually obtained a rather rapid response and healing. Recurrences, to be sure, take place, but frequently destruction of such a new focus at once will eventually lead to cure. When the lesions are small, and so situated that surgical removal can be carried out, I believe this to be the method of choice.

All methods of treatment are followed, in a very high percentage of cases, by relapse, and therefore any new method of treatment which offers hope of permanent cure, or of more rapid healing, so as to prevent disability is highly desirable. I feel that Doctor Brown is to be congratulated on making an attempt in this direction, and that further study and trial of his method is desirable. I do not know just what progress will eventually be made with the use of atabrine, but it offers possibilities that are worth considering.

The most prompt results which I have achieved in the chemotherapeutic treatment of granuloma inguinale have been from the use of fudrin (sodium antimony biscatechol-disulfonate of sodium). This drug is more expensive than the more commonly used antimony and potassium tartrate. Unfortunately, relapse and recurrence are common after both drugs. Perhaps if we could educate the patient to return and continue his treatment over a longer period of time, as we do with syphilis, better results could be achieved. The average patient with this condition, however, is not likely to cooperate

to any extent, and many of them become "fast" to the drug, and no longer receive benefit from its use. In such cases, a trial of atabrine would seem to be indicated.

Experimental therapeutic problems are always of great interest, particularly to physicians in private practice, as well as those doing work in clinics, where such problems are encountered. One would gain the impression, by reviewing the literature, that granuloma inguinale is not a particularly common disease. A paper written in 1926, reviewing all cases in the English literature, totaled only forty-six cases. I am sure that most of us who see Negro patients at the various clinics, can observe, in the course of a year, at least a dozen or more cases, everyone of which presents a difficult problem, both from a standpoint of therapeutic cure, and of rehabilitation of the patient in order to enable him to work. Any method which will shorten the course of this essentially chronic disease, is well worth a careful trial.

*Dr. G. C. Bottari, Tampa:*

I will limit my discussion to oriental sore and the new Italian method of treatment. This form of leishmaniasis is common in the Mediterranean basin. The oriental button is a slow growing, indurated nodule that breaks down forming a sharply defined superficial ulcer with granulating fundus that heals after a long time leaving an ugly, disfiguring scar.

In August 1938 Dr. Franco Flarer, Professor of Dermatology and Syphilology at the Royal University of Catania, Italy, in an article appearing in the *Bollettino dell'Istituto Siero Terapico* of Milan, described a successful treatment of oriental sore by injecting atabrine into the lesions. This article was translated and appeared in the *Press Medical de Paris*, Sept. 1938. Since then several authors have reported highly successful results in oriental sore by the injection of atabrine into the lesions as outlined by Flarer. The volume of solution is adjusted to the size of the lesion and the injection is made with sufficient pressure to cause ischemia and deep penetration of the lesion. The injection is repeated if necessary. The leishmania disappeared from the lesions and healing occurred in ten to twenty days. Beyond question this new treatment of oriental sore has advantages over all hitherto employed ones.

Dr. Alan Brown deserves credit for adapting this new treatment of Flarer with atabrine to the therapy of granuloma inguinale.

*Dr. Alan Brown, (concluding):*

I cannot say that the work so far would definitely prove that atabrine is a cure for granuloma inguinale by any means. But I do believe that the improvement in the lesions following this treatment would definitely lead us to believe that it has a pronounced therapeutic value. How much difference there is between the results of simple curettage and use of caustics such as trichloroacetic acid, and the results from curettage plus atabrine injection and surgical dressing is a thing that will have to be proved.

The results in these cases of granuloma inguinale are not as impressive as those obtained in oriental sores, but the friability of lesions of granuloma inguinale does not permit an ischemia from the pressure of injection.

#### RAT-BITE FEVER

Evidence is accumulating which shows that two diseases have heretofore been erroneously grouped under and confused with rat-bite fever, F. F. Allbritten, M. D., R. F. Sheely, M. D., and W. A. Jeffers, M. D., Philadelphia, point out in *The Journal of the American Medical Association* for June 15.

These diseases are Haverhill fever, due to the ingestion of the *Haverhillia* multiformis organism (for example, in milk as happened in the Haverhill [Mass.] epidemic of 1926), and a type of fever due to the same organism but acquired by rat bite or by some other method than ingestion. The usual rat-bite fever is caused by an organism known as *Spirillum minus*.

## PYELONEPHRITIS

## RECENT IMPROVEMENTS IN TREATMENT

JAMES J. NUGENT, M. D.

Miami

Recent advances in chemotherapy have proved extremely valuable in the treatment of pyelonephritis. Since many specialists, as well as general practitioners, are confronted with the problem of urological infections, it is important that the present knowledge of the pathology and treatment of this disease be disseminated as widely as possible.

The purpose of this paper is to evaluate the newer drugs used in the treatment of pyelonephritis. The pathological physiology will be reviewed and the proper technique for obtaining accurate diagnosis will be given.

The etiology of pyelonephritis is related to three factors: drainage, bacterial invasion and systemic defense. The success of treatment will depend upon adequate control of these three factors. The introduction of the newer urinary antiseptics has enhanced the effect of treatment but proper therapy requires more detailed information than has previously been obtained by the majority of physicians. Anyone who continues to treat pyelonephritis with a single favorite prescription and forced fluids is liable to find himself in the famous horse and buggy days.

A study of the urinary system reveals that, functionally, it is a secretory mechanism with a drainage system. Being a completely integrated unit, infection in one part of the tract may spread throughout the entire system, involving the kidney tissue as well as the draining tubes. This is important. The commonly used term "pyelitis" does not denote the concept of renal involvement and, therefore, I prefer the term "pyelonephritis." The use of this term will give us a more accurate picture of the pathological process and will lead toward the technique of diagnosis which is necessary to obtain the information that proper therapy requires.

Developmentally, the urinary system is much less perfect than most other systems in the body. It is estimated that there is a congenital abnormality in the urinary tract in

one of every one hundred of the population. Developmental defects include misplaced or ectopic kidneys, horseshoe or fused kidneys, double kidneys, reduplication of the ureters and stenosis or stricture of ureters and urethra. Valve formations may be present and are usually found in the urethra. Though there are many other congenital abnormalities, these are more frequently associated with pyelonephritis because of their obstructive nature.

The stasis resulting from any obstruction is a most important factor in pyelonephritis. It has often been shown that bacteria may pass through one or both kidneys without causing either clinical symptoms or pathological changes. But this presupposes good drainage. When there is stasis in the renal reservoir, not only is urine prone to be infected, but the resulting infection is difficult to eradicate until better drainage is established.

This is true whether the infection be acute or chronic. The importance of free drainage of urine is not adequately recognized, except by urologists. It is so important that Hunner, in discussing a paper by Carrol, Lewis and Kappel<sup>1</sup> on the efficiency of mandelic acid, stated:

In recent years he had given no medication by mouth and had not used pelvic lavage, for experience had shown that, with good drainage, the kidney is capable of cleaning up its infection. Many patients are seen for whom the x-ray and other studies seem to indicate the necessity of future operation on the kidney; but after thorough preliminary ureteral drainage, the urine clears completely and the symptoms due to stasis and infection disappear.

In addition to the developmental defects, stasis may result from obstruction of a more or less mechanical nature. This type of obstruction includes hypertrophy of the prostate, stone formation, polyps, blood clots and extrinsic tumors. The common, almost routine, dilatation of the ureters during pregnancy gives the effect of a mechanical obstruction.

We all know that the treatment of most of these lesions requires the assistance of the urologist but inability to treat these lesions should not lead us to forget them, though few of them give localizing symptoms. The survey of every case of pyelonephritis should recognize the possibility that the infection is associated with stasis of urine. This is especially true if infection persists or recurs

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in spite of proper therapy. Generally speaking, the problem of stasis is the problem of the urologist but irreparable damage may have been done before he is consulted unless the physician remembers the frequent association of obstruction and pyelonephritis.

The factor of systemic defense needs little discussion because it was well worked out in the days when supportive treatment was about all that could be done for the patient with pyelonephritis. I need only advise that the physiology of the whole body be maintained at the highest state of efficiency. The brevity of the discussion of this factor does not minimize its importance but rather acknowledges the excellent attention which it usually receives.

The bacterial flora of urinary tract infections has become increasingly important since the introduction of the later urinary antiseptics. This is true because it has been found that each of the drugs is more effective against some bacteria than against others. This specificity fortunately embraces the broad family groups such as bacilli and cocci and elaborate bacteriological investigation is, therefore, seldom necessary. Occasionally it is necessary to culture the urine and accurately identify the bacteria but this usually falls to the lot of the urologist.

Sufficiently accurate information can generally be obtained from a gram-stained smear of the urinary sediment. This procedure has become an important part of the investigation of pyelonephritis. It is no longer adequate to make a diagnosis of pyelitis because there is fever, pus in the urine and pain in the loin. As a matter of fact, such a diagnosis is frequently about as specific as a diagnosis of heart trouble based on edema of the ankles and shortness of breath. The physician is not expected to be able to make a complete urological investigation. He can, however, make a good preliminary examination from which he can obtain sufficient information for the successful treatment of most cases of pyelonephritis.

Investigation of the urinary tract begins with a complete history, carefully taken. Many general symptoms are of significance in relation to pyelonephritis. Chills, fever, vertigo, nausea, vomiting, recent infection

and abdominal pain are frequently associated with urological infections. It is often necessary that symptoms be suggested to the patient, especially those symptoms arising directly in the urinary tract. It is surprising how often urological symptoms are disregarded or forgotten by the patient and, unless specific questions are asked, important information escapes detection. Information obtained from a detailed history may be the deciding criteria in determining the need for urological consultation.

The next step in investigating the urinary tract is a complete physical examination. Important clues may be obtained from the blood pressure reading, the pupillary reactions, the tone of the anal sphincter, locomotor abnormalities or foci of infection. The examination will include, of course, a vaginal and rectal examination. All of these procedures are evident requirements but it is unfortunate that the busy physician too often omits one or more of them.

The direct study of the urinary tract begins with the collection of the urine. Urine is collected by catheter in the female because contamination of the voided urine by vaginal secretions almost always occurs. The information obtained from a microscopic examination of a voided female specimen is unreliable and has led to grave diagnostic error. I wish to emphasize the error of this habitual procedure. Do not waste your time putting such a specimen under the microscope.

In the male, the urine is collected in three containers. The first specimen, about fifty cc., contains the urethral secretions. The second specimen comprises most of the bladder urine. For the third specimen, the bladder is emptied. When urine is properly collected it is often possible to locate the source of pus or blood with great accuracy. A study of the three specimens yields important information which may often be diagnostic. The chemical tests need be done on only one specimen but microscopic examination is done on the centrifuged sediment of all three. The moist sediment is examined as usual for the presence of cells, casts and crystals.

The presence of blood or pus in all three specimens equally indicates that the pathological process is in or above the bladder. The

differential diagnosis can be made only by urological examination. Cells in only the first specimen indicate that they are coming from either the prostate or the urethra. The presence of cells in only the third specimen indicates that they are being squeezed out of either the prostate or vesicle neck during the final contracture of the bladder. Cells or shreds in the first and last specimens indicate involvement of both the urethra and prostate or bladder neck. More detailed differential points are to be found in such a chart as that of Young.<sup>2</sup> These criteria give considerable aid in localizing the source of pyuria or hematuria and should be used in the study of pyelonephritis, as well as in other urological studies. For it must be remembered that the source of an acute infection in a kidney or the bladder is often a chronically infected prostate. Conscientious and vigorous treatment of the upper urinary infection may be unsuccessful if the lower urinary infection is not suspected and treated. This is true of vaginal infections as well as prostatic infections.

I wish to point out here another cause for urinary infections. It is customary for females to use toilet tissue after stool by inserting the hand between the thighs and drawing the tissue forward from the anus. The position of the urethra exposes it to contamination by the fecal material on the tissue. This undesirable effect is eliminated if females are cautioned to approach the anus from the side, as males do, and pass the tissue away from the vagina. I believe it would be particularly propitious for pediatricians to instruct all girls in this technique of stool hygiene.

The next step of investigation is the determination of the bacterial flora causing the infection. This is done by examining a smear of the urinary sediment which has been fixed and stained by the gram method. It is sufficient to know whether the organisms are gram-negative or gram-positive bacilli or cocci. Should more accurate identification be necessary, the case will justifiably require the attention of the urologist because other urological investigation will be necessary.

The importance of identifying the bacterial agent causing the infection is due to the fact

that the urinary antiseptics are somewhat specific in their efficiency.<sup>3</sup> Inasmuch as these drugs are expensive, and may be toxic, it is not wise to administer them indiscriminately.

Sulfanilamide<sup>4</sup> is most effective in urinary infections caused by bacilli and those associated with prostatitis. Coccal infections do not subside readily to sulfanilamide; the *Streptococcus faecalis* is most resistant. In bacillary infections, sterilization of the urine can usually be obtained by a dosage of forty grains of sulfanilamide daily in less than ten days. It is rarely necessary to give more than sixty grains daily since experience has shown that the smaller doses of sulfanilamide are effective if given for slightly longer time. The usual precautions should be taken to prevent undesirable toxic reactions. The drug should be discontinued after ten to fourteen days. A second course, following a rest period of a week, is frequently more effective than the first course.

Infections caused by coccal organisms often subside when neoarsphenamine is given intravenously.<sup>5</sup> The dosage is 0.2 Gm. followed every five days by 0.3 Gm. as long as there is definite improvement. If there has been no improvement after the second injection, further administration of neoarsphenamine will be of little value and other treatment should be instituted.

The use of mercurochrome<sup>6</sup> is restricted to those cases of acute pyelonephritis which are serious because of a prolonged high fever. When administered intravenously in small amounts, not to exceed ten cc. of a one per cent solution, mercurochrome is an excellent antipyretic. It is relatively safe but should not be repeated more than once. Even though the fever be terminated, it is necessary to give one of the urinary antiseptic drugs in order to eradicate the infection.

The effective use of these drugs does not require control of the hydrogen ion concentration of the urine. Sulfanilamide is perhaps a little more effective when the urine is alkaline and permits the use of soda bicarbonate to prevent gastric irritation.

Methenamine is a urinary antiseptic of wide use and abuse. The drug is effective only in an acid urine, and the lower the hydrogen ion concentration, the more effective the drug.



It has the advantage of permitting intravenous administration when there is gastric intolerance. It has no specificity. The dosage of methenamine is 45 grains or more daily, divided into five or six doses. The urinary volume is limited to 1200 cc. in twenty-four hours in order to maintain a concentration of formaldehyde which is effective. Methenamine is often ineffective because it is given in insufficient dosage, is diluted by a forced fluid intake, or is excreted in a urine which is highly alkalinized by citrus fruits.

When it was found that acid urine is bacteriostatic in itself, diligent investigation was done to learn how urine could be acidified strongly. When all foods with an alkaline ash are eliminated from the diet, the urine normally becomes more acid. Clinically, the procedure is to prescribe an acid ash diet. The following chart lists many of the foods, segregating those with an alkaline ash from those with an acid ash. To acidify the urine, simply tell the patient not to eat the alkaline ash foods. Ammonium chloride or sodium acid phosphate may be administered to further assist in acidification of the urine.

#### ALKALI-PRODUCING FOODS

Almonds	Hazelnuts
Apples	Honey
Apricots	Horse-radish
Asparagus	Jams, except cranberry and plum (these fruits are acid-producing)
Bananas	Jelly
Beans, dried	Leeks
Beans, fresh string	Lemons
Beans, lima, dried	Lemon juice
Beans, lima, fresh	Lettuce
Beets	Limes
Blackberries	Maple syrup
Cabbage	Milk, cow's, whole
Cabbage, green	Milk, cow's, skimmed
Cantaloupe	Milk, cow's, condensed
Carrots	Milk, goat's
Cauliflower	Milk, human
Celery	Molasses
Celery	Mushrooms
Cherries, red	Muskmelon
Chestnuts	Olives
Chocolate	Oranges
Cider	Orange juice
Citron	Parsnips
Cocoa	Peaches, fresh
Coconut, dried	Pears
Coconut, fresh	Peas, dried
Cream	Pineapple
Cucumber	Potatoes, sweet
Currants, dried	Potatoes, white
Currants, fresh	Pumpkin
Currant juice	Radishes
Dandelion	Raisins
Dates	Rhubarb
Endive	Rutabagas
Figs, dried	Spinach
Figs, fresh	
Grapefruit	
Grape juice	
Grapes	

Strawberries  
Tomatoes  
Turnips  
Turnip tops

Watercress  
Watermelon  
Whey  
Wine, average

#### ACID-PRODUCING FOODS

Barley, pearl	Meat—
Bread, white	Bacon
Bread, whole-meal	Beef
Cake, plain	Chicken
Cheese	Frog
Clams, round	Ham, boiled
Clams, soft, long	Ham, medium fat
Cornflakes	Ham, medium smoked
Corn (maize), sweet	Ham, smoked
Crackers	Liver
Cranberries	Mutton
Doughnuts	Pork, lean
Egg, white	Rabbit
Egg, whole	Veal
Egg, yolk	Meat Peptone
Fish—	Mustard
Cod, salt	Oatmeal
Haddock	Oysters
Halibut	Peanuts
Herring, smoked	Plums
Mackerel	Prunes
Pike	Rice, brown
Salmon, fresh	Rice, puffed
Salmon, canned	Rice, white
Sardines	Spaghetti
Smelts	Walnuts
Flour, white	Wheat, bran
Flour, whole-meal	Wheat, germ
Lentils, dried	Wheat, puffed
Macaroni	Wheat, shredded
	Wheat, whole

#### NEUTRAL FOODS

Butter	Onions
Corn flour	Peas, fresh
Lard	Sugar
Oils, vegetable	Tapioca

Eventually, it was found that certain acids are excreted through the kidney unchanged and have a bacteriostatic effect. Mandelic acid is one of these. Mandelic acid is most effective in the treatment of pyelonephritis caused by gram-negative bacilli or the *Streptococcus faecalis*. When given intelligently, the results of mandelic acid therapy are very satisfactory. To be effective, mandelic acid requires a strong concentration and strong acidity of the urine. The concentration of mandelic acid in the urine must be at least one-half of one per cent. This is accomplished by administering, in the adult, ten to twelve grams of the acid daily while the fluid intake is restricted so that not more than 1200 cc. of urine are excreted in twenty-four hours. The acidity of the urine must have a hydrogen ion concentration of 5.5 or lower. The efficiency of the drug increases remarkably as the acidity of the urine increases. The desired concentration will usually be obtained by an acid ash

diet and the mandelic acid alone. Ammonium chloride can be administered, if necessary, in dosage of four to six grams daily as a supplement to mandelic acid. After administration for ten days, mandelic acid should be discontinued. If the urine is sterile, a second course is not necessary. If the urine is still infected, there should be a rest period of five days because the bacteria seem to become resistant to the drug and because prolonged administration sometimes produces renal irritation.

Mandelic acid produces gastric irritation and is disliked by many patients. It is available in many forms, all of which are more or less expensive. For these reasons, I was interested in the announcement by Sisk and Toenhart<sup>7</sup> that gluconic acid produces the same effects as mandelic acid. Use of this drug for the past year has convinced me that pyelonephritis due to gram-negative bacilli respond as well to gluconic acid as to mandelic acid. There are, in addition, several advantages in the use of gluconic acid. The most important is that mandelic acid costs ten times as much as gluconic acid. There is no gastric irritation. There has been no evidence of renal irritation even when the dosage was excessive, as it was for one man to whom a double dose was given in conjunction with an investigation into another problem which has not been completed. The toxic effect which did manifest itself in this instance was an angioneurotic edema of the lips which subsided in eight hours after the drug was discontinued. This was accompanied by an eosinophilia of thirteen per cent and a mild lymphocytosis but, otherwise, all the chemical and microscopic studies on the blood were normal. Hermann<sup>8</sup> believes gluconic acid can be taken for years without ill effect. There has been no hesitation in administering gluconic acid in effective dosage.

It has been evident that the properly selected urinary antiseptics are very valuable when given with due consideration to the factors which are essential to their effective action. It is unfortunate that mandelic acid and methenamine have been ineffective in cases of pyelonephritis. But, too often, the failure is due to the physician rather than the drugs. Success will be erratic unless proper concentration is obtained and adequate acidity

is maintained. Too often does one see orders for methenamine, 10 grains three times a day, or mandelic acid, one gram every four hours; forced fluids and fruit juices to 4000 cc. daily with a regular diet. Fruit juices alkalize the urine. Four thousand cc. of water dilute the medication so that it is ineffective. Such treatment may be successful but it is well to remember that a patient with acute pyelonephritis tends to recover spontaneously on bed rest, restricted diet and forced fluids, without any medication. If however, treatment is not intelligent, there is usually no attempt made to be sure that a chronic infection does not continue.

Pyelonephritis places a serious responsibility before the physician.<sup>9</sup> He must be careful that, after the acute symptoms subside, a chronic infection does not continue. Chronic pyelonephritis is a serious disability which requires urological investigation. Since primary acute pyelonephritis seldom demands urological investigation, the physician is in need of some criteria which will aid him in determining the classification of the individual case. Though the urologist need see only a small minority of cases of pyelonephritis, early treatment of these cases is most desirable.

The history is an extremely valuable aid. Recurrent acute urinary infections suggest chronic infection with exacerbation. Failure to respond to adequate treatment makes one suspicious of stasis. Symptoms of urinary tract irritation, such as enuresis, should not be disregarded. Hematuria is considered serious until proved otherwise. The presence of pus in properly collected urine requires careful observation, even though the pyuria be slight or sporadic. Abnormalities of the urinary tract are frequently multiple so the presence of one abnormality accompanied by evidence of infection, leads one to suspect other defects.

These criteria assist in determining the necessity of urological consultation. Acute pyelonephritis tends to demand and secure adequate urological investigation. Chronic pyelonephritis, by its nature, is apt to lead to procrastination. It is my hope that this paper will lead to a more critical consideration of pyelonephritis and intelligent manage-

ment of the borderline cases of urinary tract infection.

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### A YOUNG DOCTOR LOOKS AT SOCIALIZED MEDICINE

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A scientific paper on a subject such as socialized medicine, under constant survey and questioning, may seem impossible, but it may be of some value to give a brief review and some conclusions on the subject named.

New diseases, new ideas and new treatment come up for a great deal of discussion, investigation; trial and error at times may be necessary. Eleven years ago when I finished medical school "socialized medicine" was an unknown factor. It has sprung into the daily discussion in sewing circles, ladies' aid societies, bridge clubs, street cars and as table talk.

As with many a new subject, a lot is said that is untrue and based on few or no facts. But perhaps it can well be said that this is one of the most vital considerations of the young doctor. It stands to reason that he is concerned. The older medical man has made his name and fame and will remain pretty much the same until age, disability, or death removes him from the active picture.

Read before the third annual meeting of the North Central Medical District, Ocala, October 26, 1939.

The medical student or even the interne can begin to adjust himself to the new order of things and set his course as he thinks best. But the young doctor must face a vital problem and do his best to keep from failing to solve it.

What is socialized medicine? What do those who oppose it fear? What do those who would foist it on the community hope to gain?

A simple definition of the socialized medicine under discussion today is government controlled and, we fear, politically controlled medicine. You hear of a national problem, a nation-wide need but, after all, the doctor serves a community, is a part of that group of people and especially is he concerned with how well he can serve his own group.

The majority of doctors for the most part believe in tradition, in true altruistic service, and therefore do not place the financial end of their work foremost. I well remember Dean J. Whitridge Williams of Johns Hopkins telling us, as a group of first year medical students: "If you are looking for a profession in order to make money or to get rich, don't go any further here."

Perhaps some of us didn't agree with him but we all, at least, had minds of our own. Modern advanced education tends more and more to leave a student to his own way of study and develops therefore an independent individual. This type of person becomes an asset to a community, thinking for himself and acting according to the best of his training. He does not want to become merely a cog in the wheel or an instrument in a machine where there is no individual effort needed. Is he not apt then to oppose a move that will designate him as only a part of a political machine?

The gain, in the mind of a young doctor, to be gotten by those who urge this sort of practice, may be of several different kinds. First, there is the idea of a larger political organization with more control, more jobs to give and more patronage for the future. This is, indeed, a possible outcome. Then there is that unspoken feeling on the part of the political ruler that he has little or no control over the profession. He may control the press, the legal profession, the school, even the ministry or religious fields, but he has never had any



degree of control over the doctor. Further, there may be something of a so-called altruistic feeling that perhaps some people aren't cared for in a medical way as they should be and it would be quite a feather in the caps of those agitating socialized medicine if it went through to function on a nation-wide scale.

Whatever the reasons may be given against or for this proposed radical change in the functioning of a profession that has brought into the world its would-be correctors and has, through times of depression, poor pay and criticism, gone right on doing a praiseworthy task, the young doctor in actual practice—for say from one to ten years—must look at this problem as it is today. And it is not impossible that his conclusions may help materially in a tangle that concerns the very future of his community. Certainly he should be given a chance to express his ideas and desires in a matter that so vitally concerns his own future. He may have spent ten years preparing for his particular life work. It means much if something threatens to shake or destroy that.

There are indeed chances for the young doctor to go into public health work, to become a part of the Army or Navy, to find a position as research man in large drug concerns and to obtain other salaried positions here and there. But the fact that all these are controlled and that there is not that independence of action or even of thought so well developed in medical school and hospital training makes many a man fear to enter these portals. Somehow such a future, even with all its assurance of security and a retirement safe and sound, doesn't fit in with the dreams, hopes and plans of most young doctors. Those who desire such work can certainly make such a choice as things stand now.

Although financial considerations may not be of first interest, still they are important. There may be a borrowed sum to be repaid or a feeling of definite obligation to an individual or group. Perhaps, some think, the easiest way out of this would be a salary or assured income. But most often the same spirit that has lead to long hours of study and worrying, disappointments and even a feeling of hopelessness in the face of human ills leads the young doctor to say "No" to what seems security. And he may go on to become a friend, advisor,

and leading citizen in his community because he has dared to believe in his own ability and thus his fellow citizens come to believe in him.

I believe the older doctors have an opportunity to aid greatly in solving this problem. It is true that they have already done the greater part of their service and, if about ready to retire, will not be bothered by the question of regimentation, but their advice and thoughts on how they would have reacted in the same situation should be of great help to those in the thick of the fray.

Many a young doctor worships an older man who has passed along the way and would emulate the work of such a man who has faithfully carried out his part in serving the community. Now is the time when effort and advice in reaching a wise decision on this matter might well come from the older members of the profession.

In the final analysis, there is no lack of medical care and no ill person need want for skilled and sympathetic attention, but there is need for training the public to impose less and cooperate more. It is often unjust calls on a physician's time and unnecessary trials of his patience that lead to seeming lack of sympathy on his part. If the writers of novels, magazine articles, movies and other means of entertaining and enlightening the public would present the doctor's side fairly and clearly, such fantastic ideas as government control of medicine—where a doctor would be told what to do and forced to do it—would be out of the question.

As in research and advancement of science, there must be proof of the worth of things to be adopted, so there ought to be proof that so great a change as socialized medicine would be worthwhile. Such is not the case. Arguments are strong and feeling high against such radical and uncertain procedures. You cannot help but wonder if those who would benefit most would be not the needy but the greedy.

For the sake of the young doctor and his future, which is and always will be tied up with that of the community he serves, let us do our best to reject the improper and harmful effects of the socialized medicine as proposed today.

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*Commercial Bank Bldg.*

## SYPHILIS

### A FEW GENERAL CONSIDERATIONS

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It has been only a little more than two years ago that the word "syphilis" first appeared in bold type in one of our popular weekly magazines, along with a frank discussion of this national health termite in calm, realistic language. The greatest single gain since United States Surgeon General Thomas Parran declared war on syphilis less than three years ago has been the fact that the old-time taboo on calling this disease by its right name and discussing it above a whisper has been exploded. Syphilis—its causes, its various manifestations, its proper treatment, its cure—is today the most discussed of all our public health and social problems.

It is not the purpose of this paper to enter into a detailed discussion of the entire field of syphilis: such would be impossible. The ramifications of syphilis are almost inestimable. Osler has been quoted as saying that "to know syphilis and all its differential diagnoses is to know medicine." Some 500,000 newly infected syphilis victims go to doctors each year for treatment, with another 600,000 advanced cases reaching doctors each year for the first time. It is estimated that 500,000 uninformed or misinformed syphilitics annually entrust themselves to quack "blood specialists" or to the chummy and warmhearted but not medically trained corner druggist. And there is an unknown but doubtless large number of advanced syphilis victims who have never received treatment at all. In view of these figures it should not be amiss to review again some of the more common aspects of this disease, even though, perhaps, they are familiar to all of us. The material in this paper has largely been taken from the bulletins on venereal diseases issued by the United States Public Health Service.

Syphilis in the United States is the most prevalent of the major communicable diseases. The fact that there is from 50 to 100 times as much syphilis here as there is in Denmark, Sweden, and Great Britain cannot be ex-

plained on the grounds of local increased virulence of the organism, decreased resistance in the host, or greater sexual promiscuity among our people. The inescapable answer is failure of the medical profession and of health officers to cope as adequately with syphilis as with other communicable diseases. The major failure is made up of several parts: inability even in the minds of physicians to disassociate morals and medicine; inability to diagnose syphilis; and inability to treat it properly once it has been diagnosed. In Scandinavia and Great Britain the management of syphilis has been, for the past quarter century, largely a function of the State. Treatment is free to all, and is centralized in the hands of a few experts. These facts are in part responsible for their success. In the United States it is not only undesirable but also because of political diversification, probably impossible for the State to assume the burden to the extent practiced abroad. Further, it is unnecessary for the State to do so if the medical profession will do its part. If syphilis is to be controlled every physician in the United States must cooperate (a) in the diagnosis of the disease among his patients, and (b) in perfecting himself in methods of treatment for the uncomplicated case, or, if he does not care to do this, in referring his syphilitic patients to other physicians skilled in treatment methods. The attack cannot be made by the medical profession alone. Law enforcement officers engaged in the suppression of prostitution, educators concerned with the sex education of children, agencies providing substitutive recreational activities, the clergy, all have their part. So far as the physicians are concerned, however, two points seem clear if the fight is to be won: (1) the doctor should confine himself to the medical aspects of the situation, leaving other phases to those better qualified; (2) every doctor must be prepared to play his part. This part is played in the three major elements of the control program: prophylaxis, diagnosis, and treatment.

#### PROPHYLAXIS

The social prophylaxis of venereal disease is more properly the task of other agencies than of the medical profession. Nevertheless, these agencies will not be able to act intelligently unless they are provided by physicians

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with accurate knowledge of venereal diseases, and such knowledge should likewise be made freely available to the general public. The physician should bear his fair proportion in the community burden of proper sex education and instruction in the schools, of providing adequate facilities for recreation for adolescents, of suppressing legalized prostitution, and of educating the press to an intelligent attitude toward venereal disease.

Medical measures of prophylaxis may be classified as chemical, chemotherapeutic, and mechanical.

Chemical prophylaxis is really early treatment applied before the organisms have had time to penetrate the tissues. It can prevent infection with all venereal diseases if properly applied and used early enough. It is most effective if applied within the hour after exposure and rapidly decreases in value as the interval between exposure and treatment lengthens. It is still of some value, especially against syphilis, as late as eight hours after exposure. Under conditions of military control, especially in our own Army and Navy, chemical prophylaxis has been brilliantly successful in reducing the incidence of venereal disease. Unfortunately, in civilian life it is practically unworkable since men will not take it except under compulsion. The civilian substitute for the Army technique is the prophylactic tube, of which several varieties are on general sale. All of them depend on the incorporation in a single ointment base of a combination of chemicals supposedly effective against both gonorrhea and syphilis. Although the use of this tube may not obviate the necessity of the preliminary thorough scrubbing with soap and water, such tubes may do some good in prevention. Their sale should be encouraged, and research efforts to improve them continued.

Chemical prophylaxis has, however, a highly important place in the prevention of accidental infection with syphilis among doctors, nurses, and dentists. In the ordinary handling of infectious lesions, even if there are abrasions on the fingers, immediate thorough washing with soap and water is adequate protection. In the case of scratch or puncture wounds with infected instruments, the wound should be laid open with a sterile scalpel to the

approximate depth of the puncture and should be packed with 33 per cent calomel ointment which is allowed to stay in place for twenty-four hours under a sterile dressing.

Three methods of chemotherapeutic prophylaxis are advocated: (1) the oral use of stovarsol, a pentavalent arsenical, both before and after exposure; (2) frequently repeated intramuscular injections of bismuth during the active period when exposures may be expected to occur; and (3) the intravenous injection of an arsphenamine after exposure.

Stovarsol may be dismissed from the present consideration because the case for it has not yet been proved, and because the drug is too toxic. Bismuth prophylaxis, applicable to a group of prostitutes, is obviously useless in ordinary practice since it is tantamount to the continuous antisymphilitic treatment of non-infected persons.

The proposals for arsphenamine prophylaxis are so far limited to those individuals exposed to a known infectious syphilitic. It is open to the objection that if it is carried out the infection may be only suppressed instead of eradicated. If the patient chooses early prophylactic treatment it should be given not later than forty-eight hours after the suspected exposure, and it should consist not of one or two arsphenamine injections, but of at least one complete arsphenamine course followed by a course of bismuth or mercury. Follow-up should be carried out as though the patient had actually been infected. If the patient is unwilling to subscribe to all of this, especially the probationary follow-up, it is far better to withhold prophylactic arsphenamine and to observe him closely for the appearance of lesions or the development of a positive blood serologic test before treatment.

Since neither chemical nor chemotherapeutic prophylaxis is at present suitable for widespread application in practice, the main hope of prevention of syphilis and other venereal diseases is mechanical prophylaxis, the condom. This is a method which is simple, painless, inexpensive, affords protection against all the venereal diseases and to both sexes at once, and which, applicable before and during the act of intercourse, eliminates the psychologic hazards associated with the other methods. Its chief drawbacks at the present are the poor

quality of some of the condoms on the market, the refusal of some types of individuals to use them, the ignorance of others as to their effective use, and the possibility of infection with syphilis on areas not covered by the condom.

A more certain method of prophylaxis, well within the power of the medical profession and already successful in Scandinavia and Great Britain, lies ready at hand in the prevention of spread of infection by means of the early and adequate treatment of every infected person. The plan of medical attack on syphilis is based on two major steps: (1) find infected persons with early syphilis, and pregnant syphilitic women, and bring them under treatment; (2) keep them under treatment long enough to accomplish non-infectiousness.

#### DIAGNOSIS

Syphilis is no respecter of persons, occupation, education, or financial status. While it is true that among Negroes and among whites in the lowest educational groups the incidence is highest, no group is exempt. Infection usually occurs in youth or in early adult life.

In all stages of the disease, syphilis tends to mimic other diseases. Few patients consult a physician complaining of syphilis. Their complaints are as diversified as human complaints can be. Thus no physician who sees patients, no matter what his specialty, can fail to number syphilitics among his clients. Most often, perhaps, they consult the family physician or the general practitioner, but they also go direct or are referred to the various specialists. The duty, then, of all physicians lies in the recognition of the prevalence of syphilis and a willingness to consider it as a diagnostic possibility, the recognition of the extent to which syphilis can imitate or be imitated by other diseases and the fallibility of clinical diagnosis, and the willingness to check clinical observation by the performance of the serologic test.

The diagnosis of primary syphilis is a laboratory procedure. The textbook descriptions of the clinical characteristics of chancre, as compared with chancroid, herpes, scabies, etc., are valueless in general practice. The primary lesion of syphilis may be a tiny abrasion, a ragged, dirty, painful, non-indurated ulcer, or a typical Hunterian chancre. The diagnosis cannot be made with certainty by looking at it

or feeling it. Every genital sore, in the male or female, and every extragenital sore which fails to heal properly, should be considered possibly syphilitic until it can be proved to be otherwise.

When the chancre is less than ten days old, the dark field is 90 to 95 per cent efficient, while at this same time the blood serologic test is usually negative (about 40 per cent may be positive). Up to the fifth week about 80 per cent of untreated primary sores may be identified with the dark field. Thereafter the percentage of positive dark-field examinations in undoubted chancres declines rapidly while the percentage of positive serologic tests rises, so that by the sixth week the serologic test is almost always positive.

For all physicians, except the expert and often even for him, the diagnosis of secondary syphilis is also a laboratory procedure. There are no less than 38 skin diseases, 22 diseases involving the buccal mucous membranes, 14 diseases of the genital mucous membranes, 16 diseases of bones and joints, and 7 ocular diseases which early syphilis may resemble. The safe rules for the general practitioner are as follows:

1. Any lesion which was possibly primary syphilis, i. e., any genital lesion in male or female, any indolent extragenital lesion, may be followed by secondary syphilis. Do a three-month serologic follow-up.
2. Any generalized skin eruption, no matter what its appearance, may be secondary syphilis. Do a serologic test.
3. Any sore mouth or throat which does not heal in ten days, no matter what its appearance, may be secondary syphilis. Do a serologic test.
4. Any unexplained patchy loss of hair may be secondary syphilis. Do a serologic test.
5. Any iritis may be secondary syphilis. Do a serologic test.
6. Any polyarticular arthralgia—acute, subacute, or chronic infectious arthritis—may be secondary syphilis. Do a serologic test.

Fortunately the blood serologic test has its greatest value at the time of the secondary outbreak. It is safe to say that in the presence of a generalized skin rash, a negative serologic test from a competent laboratory makes the diagnosis of secondary syphilis highly improbable. However, if in doubt, have the test



repeated. One should not be satisfied with one negative report.

All syphilitic infections are latent at some time in their course and, in most instances, after healing of early syphilis are latent most of the time. Latent syphilis is not clinically recognizable; it can be identified only by routine serologic testing.

What has been said as to latent syphilis is especially true of the disease during pregnancy. The lesions of syphilis are suppressed by pregnancy, and in 9 cases out of 10 syphilis in the pregnant woman is not clinically recognizable. Congenital syphilis can be prevented only if every doctor will do routine serologic tests on every pregnant woman as early as possible in pregnancy. If done and found negative before the fifth month the test should be repeated at the seventh month to guard against the possibility of infection late in pregnancy.

The difficulty of clinical diagnosis in early syphilis is multiplied a hundredfold in late syphilis. It is too much to expect of the average physician that he shall be a competent dermatologist, roentgenologist, orthopedist, internist, ophthalmologist, cardiologist and neurologist. The only way out of this diagnostic dilemma is, as previously suggested: (a) a realization that there may be confusion between syphilis and other diseases, a willingness to consider syphilis as a diagnostic possibility; (b) free use of the serologic test. If this were done whenever the possibility of syphilis exists, and equally when it is not especially suggested, i. e., as examination routine, 90 to 95 per cent of all cases would be properly diagnosed, and only 5 to 10 per cent missed.

In general, physicians may be divided into three groups, so far as the treatment of syphilis is concerned:

(1) A group which, lacking knowledge of the fundamental technical procedures of venipuncture, intramuscular injection, lumbar puncture, asepsis, and the preparation of drugs, should not attempt to treat the disease at all. Such physicians should refer all syphilitic patients to a more experienced colleague or to a clinic. The technical procedures involved are of such a nature as to require practical experience; they cannot be learned from texts or figures.

(2) A group able to perform these procedures, but lacking detailed knowledge of choice of drugs, reactions, clinical and serologic response of patients, etc. This group may and should treat patients with syphilis providing they adhere rigidly to standard outlines of treatment prepared for such patients on the basis of massive clinical experience, and providing they seek expert advice in regard to individualized treatment procedures or schedules.

(3) Expert syphilologists capable of handling any treatment situation.

A routine plan of treatment, which might be strictly adhered to by the relatively inexperienced practitioner though modified at will by the expert, is desirable in early syphilis as opposed to late syphilis, where extreme individualization of treatment is often necessary. There is general agreement as to the best scheme of treatment for early syphilis though differences of opinion between specialists may occur on minor points. This scheme of treatment will not be reviewed here as it should be familiar to all and, if not, is readily available in numerous bulletins, journals, texts, or drug literature.

The phrase, "early treatment," needs still further definition. With cooperation on the part of the patient, it is possible to "cure" almost 100 per cent of patients with seronegative primary syphilis when the chancre is, on the average, of less than fourteen days' duration. By the time the patient with primary syphilis has developed a positive blood serologic test or the lesions of secondary syphilis, "cure" is possible under the best of treatment in only about 80 per cent. This means literally that a few days' delay in starting treatment may mean the difference between "cure" and "no cure."

The Cooperative Clinical Group studies have demonstrated the superiority of arsphenamine to neoarsphenamine in early syphilis, producing 16 per cent more satisfactory results with 4 per cent less clinical relapse. It is in use in most large American syphilis clinics. However, its proper neutralization with alkali makes its preparation so difficult for the unskilled practitioner that he is usually unwilling to undertake it. This fact, together with the greater amount of time necessary for its ad-



ministration has led to the much more widespread use of the simpler neoarsphenamine. Nevertheless, arsphenamine remains the arsenical drug of choice in early syphilis.

Neoarsphenamine is therapeutically less active than arsphenamine and if employed in early syphilis should be used in correspondingly larger doses and in longer courses. Roughly, for each 0.1 gm. of arsphenamine, a corresponding dose of 0.2 gm. neoarsphenamine should be used.

Mapharsen is a new product recently introduced. Chemically, it is arsenoxide, the therapeutically active breakdown product of all other arsphenamines. Experimentally it is 10 times as toxic as arsphenamine and is used in correspondingly small doses. Mapharsen is still in the experimental stage, and its final value in the treatment of early syphilis will not be determined for some years. Early studies indicate, however, that it is at least equal to and possibly superior to neoarsphenamine as regards the disappearance time of surface organisms, healing of lesions, and serologic reversal in early syphilis; and that it produces distinctly fewer mild and serious reactions than any other of the arsphenamines.

Silver arsphenamine may be occasionally used in early syphilis if avoidance of "ether odor" and mild reactions is desired. Argyria may follow its long and continued use.

Sulfarsphenamine has no place in the treatment of adults because of its tendency to produce serious reactions. Infants and young children tolerate it well. It is never given intravenously, but intramuscularly.

Tryparsamide is useful only in neurosyphilis.

Acetarzone (stovarsol) has been recommended for oral administration in the treatment of syphilis, especially congenital syphilis. It is still in a highly experimental stage, and its use is not advised.

Other arsenical drugs than those mentioned should not be employed by the inexperienced physician.

Except under unusual circumstances, early syphilis cannot be cured by the arsphenamines alone; it is necessary to combine them in some fashion with bismuth or mercury or both. It is even more unjustifiable to attempt to cure early syphilis with bismuth or mercury to the

exclusion of the arsphenamines. Bismuth acts in much the same way as mercury but is therapeutically more active. Also, dose for dose, bismuth is much less likely to produce toxic effects than the insoluble mercury salts. In most cases of syphilis, therefore, bismuth has completely replaced mercury and the practitioner will rarely if ever have occasion to use the latter. Its chief indication is in alternation with bismuth in a patient permanently sensitized against the arsphenamines.

The only definite evidence of "cure" of syphilis in man is reinfection. Tissue transfer, the best criterion in the experimental animal, has not yet been shown to be applicable to man. Necropsy evidence is of no practical value in attempting to decide the question of "cure" in a living person.

Prolonged clinical observation is the only satisfactory test of "cure." In concrete terms this means, immediately following the completion of treatment, there is a full year of probation during which the patient receives no treatment, develops no lesions of syphilis, and the blood serologic reaction tested at frequent intervals of at least every two months remains permanently negative. At the end of a year a complete physical and neurologic examination must show no evidence of progress of the disease, especially in the nervous system or cardiovascular apparatus. Furthermore, the absence of involvement of the nervous system must be demonstrated, not only by freedom from neurologic signs but also by a negative examination of the cerebrospinal fluid. A physician who dismisses a patient as "cured" without a routine spinal puncture is criminally negligent.

If a patient completes the requisite amount of treatment and fulfills these fairly rigid criteria during the period of probation he may be regarded as probably "cured," and, if he desires, allowed to marry. He should not, however, be discharged from further observation. Every effort should be made to keep him under observation throughout life. This is the only assurance which can as yet be offered against insidious unrecognized progression or relapse. After the first probationary year a yearly physical examination and blood test, without repetition of the spinal fluid if twice negative previously, is in order. Teleroentgenographic

and cardiologic study of the heart and great vessels is desirable by the fifth year and thereafter as the physical examination indicates, but at least with repetition in the tenth year. Only by such supervision can the greatest security be insured for the patient.

#### DISCUSSION

The question most frequently asked of the consultant syphilologist is what to do for the patient with a persistently positive serologic test of the blood. Seroresistance depends upon a variety of factors, some of which are now definitely known. These are:

1. The sensitivity of the serologic test employed.

2. In early syphilis, seroresistance may be regarded as a manifestation of persistent foci of organisms or progressive activity. In late syphilis, on the contrary, it may result entirely from the persistence of a well-established immunity.

3. The type of syphilitic infection at the beginning of treatment. The incidence of seroresistance varies from about 10 per cent in patients with early syphilis to about 75 per cent of those who first come under treatment with general paresis.

4. In early syphilis, three other factors are of importance.

- (a) The type of treatment given. Of those treated continuously, only 11 per cent are seroresistant; of those treated intermittently, 37 per cent; and of those treated irregularly and haphazardly, 68 per cent.

- (b) Seroresistance is associated with a high proportion (about 40 per cent) of asymptomatic neurosyphilis.

- (c) Relapse occurs nearly five times as often in seroresistant early syphilis as when serologic reversal is secured by treatment.

5. In late syphilis, on the contrary, there is no relationship between seroresistance and type of treatment, or incidence of asymptomatic neurosyphilis, and relapse or progression is no more frequent in seroresistant patients than in those whose tests reverse.

What is to be done for the patient who manifests seroresistance?

Before answering this question, it is essen-

tial to re-emphasize the aims of treatment of syphilis, early or late. These are:

1. The healing of lesions and the relief of symptoms;

2. The maintenance of good health, and the prevention of progression or relapse;

3. And, least important, serologic reversal.

If the first and second aims can be accomplished, success or failure in the third is, or should be, a matter of complete indifference to physician and patient alike. If the patient can be restored to health and kept so for a life time, seroresistance may be regarded as entirely analogous to the persistence of a positive tuberculin test in a patient recovered from tuberculosis; or a positive Widal test in one recovered from typhoid fever. Efforts to abolish the persistently positive tuberculin or positive Widal test are agreed to be both unnecessary and futile.

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#### LOW BACK PAIN

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So much has been written on this subject and so many ramifications of etiology have been considered that it may seem superfluous to discuss another phase of etiology. However, my experience would seem to justify a record of the following observations.

Several years ago, in examination of a female patient, who complained of low backache in addition to many other symptoms, I discovered a small nodule over the sacro-iliac joint, which was extremely painful to pressure. I thought nothing of this finding at that time, as I considered that it probably was an enlarged lymph node, which was secondary to pelvic inflammation. Subsequent to that experience on several occasions, I noticed the same phenomena, but did not look for the condition, routinely, as I still considered that it was probably an enlarged lymph node.

Last year (July 1938) in examination of a female patient to determine the cause of a persistent backache, I found the same enlargement at that site. Her history revealed that she had been operated upon about two years pre-

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viously. A small ovarian cyst had been removed, a retroverted uterus was suspended and her appendix was removed. Her principal complaint over a period of years had been a persistent backache. The operation had not relieved her symptoms. Subsequent to this she had a cauterization of her cervix and wore a ring pessary for several weeks. Her back symptoms persisted.

At my examination, I found a hard nodule over both sacro-iliac joints, posteriorly. The left one was larger than the right. Pressure over this enlargement caused severe pain which was similar to the pain experienced by the patient which had persisted over the several years past. At this time, I decided to inject the enlargement with novocain. This was done, and the patient was relieved for a short while. With this result, I felt justified in advising the removal of this growth. After removal under novocain anesthesia, the patient was completely relieved of the entire chronic backache. Pathologic section of the tissues removed showed nerve tissue. She has had no recurrence of symptoms to this date.

Since that time, I have routinely examined every patient for this condition, whenever any symptoms would suggest it. I have been amazed to find the large number of women who have such an enlargement with more or less definite symptoms. I have had no experience with similar conditions in the male as my observations have been made only in the female.

I would like to summarize for your consideration the results of my observations.

*Symptoms.* Back pain experienced over a number of years. These patients have usually had the experience of several examinations and treatment aimed at correction of some definite or indefinite pelvic pathology. I have found no definite association of this condition with any special pelvic pathology.

*Physical Findings.* There is a definite nodule varying in size from a pea to the size of a small bird egg, on one or both sides, usually larger on one side. The enlargement gives the impression to the palpating finger of a lymph node similar to the enlarged cervical lymph nodes associated with a chronic tonsillitis. The enlargement is situated deep against the bone in the region posterior to the sacro-iliac joint.

Pressure over the enlargement will cause a sharp pain which radiates in all directions from this focal point and may even cause pain into the thigh, similar to pressure over a superficial nerve.

*Pathology.* I felt convinced when I decided to remove the first enlargement that I would find a lymph node. No lymph tissue was present. I have not been able to determine the exact type of nerve tissue present, from the pathologist at this writing. I expect in the future to give a more definite discussion of the pathology after more study of tissue removed in the future. No gross association of nerve fibres were demonstrable at removal. I am of the opinion that these nodes are associated with the sympathetic system.

*Treatment.* The only permanently successful treatment in my experience has been removal. I have used alcohol injections in two cases with only partial relief. In no instance have we had recurrence of symptoms after complete removal.

#### *Conclusions.*

1. The occurrence of nodes in the posterior sacro-iliac region is a definite factor in the production of low back pain.
2. The nodes are neural in origin, the exact pathology not being definite at this time.
3. Proper examination of every patient suffering with low back pain should be made to determine if this condition be present.
4. Complete removal of the node or nodes should be done to relieve the symptoms.

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## TRAUMATIC SURGERY IN A SMALL HOSPITAL

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It is not my aim in this short paper to show that traumatic surgery is any different in a small hospital than it is in a large one. Identical principles of surgery should be employed in both of them if the best results are to be obtained. The same mechanical contrivances and identical precautions are to be followed. Neither is it the aim of this paper to cover so vast a field as the title of "Traumatic Surgery" may portend, as this embraces multiplicity of injuries ranging from a simple brush

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wound to a depressed fractured skull. A small hospital in a small city with a sparsely settled hinterland is called upon to treat this variety of injuries daily. Its facilities are not restricted to human beings. A small fox terrier hobbled to our hospital after he was run over by a car, and an x-ray revealed a fractured foreleg. The animal was not turned away. His leg was splinted, and he was turned out in the yard where he remained until the bones healed and the splint was removed.

Traumatic surgery is not elective. It cannot be postponed and is often a life-saving measure. The prognosis is as good as our facilities. A simple laceration, sutured with unsterile thread, will not always heal by first intention and will usually result in infection, sloughing, and scarring irrespective of our technique of approximation of edges for ideal cosmetic results. Traumatic abdominal operations may be technically perfect, but lack of facilities for supportive measures in postoperative condition will nullify the good technique and the patient will die. In other words, "the operation was a success, but the patient died." Perfect technique in reduction of fractures about the elbow is all for naught if the patient develops Volkmann's contracture.

Those of us who work in a small hospital and attempt to give the community the best emergency service are up against an economic problem. Statistics at our hospital show that 75 per cent of all traumatic surgery is incident to transportation, and a vast majority of these rescued from automobile wrecks. The other 25 per cent include injuries by firearms, fights, household accidents and those of industry. This being a tourist state, the improved highways account for the high percentage of traumatic surgery resulting from automobile accidents. Larger industrial centers would experience a higher percentage of industrial accidents.

Emergency surgery is defined by Mock in his work on *Industrial Medicine and Surgery*, as the first treatment rendered by the surgeon to an injured person, explaining that in most industrial plants, the first aid is given by a layman who has been trained in first aid work, or by a nurse. Every wound not made with surgical intent is a potentially infected wound. The chief objects should be to stop hemorrhage, overcome shock, prevent infection, and

obtain the smallest possible amount of disfigurement.

Usually there is a varying degree of contusion present also, which requires a debridement. The usual procedure in the treatment of such a wound is, first, to control hemorrhage with hemostats or by the use of a tourniquet. If a tourniquet is used, it should be watched carefully and not left on too long at one time. Immediate application of an antiseptic is necessary on all open wounds. Tincture of iodine, merthiolate or mercurochrome 2 to 5 per cent have been found to be good, but it is my experience that irrigation of the wound with saline, boric acid or some weak solution for thorough cleansing and the application of an antiseptic which is the least caustic to tissues, gives the most satisfactory results. It is often necessary that the region be anesthetized, using 1 per cent novocain injected with a small, sharp needle. Some degree of anesthesia may be obtained by saturating a piece of gauze with the novocain solution. When the desired anesthesia is obtained, the wound is thoroughly examined, and all dirt and foreign material are removed along with non-vital tissue. All muscle that appears discolored, fails to bleed, or has lost its power of contractility, must be removed. It is in this type of wound in which the dreaded complication, gas gangrene, is most likely to set up. If there is a great deal of tissue destruction and the wound is deep, it is often wiser to place Dakin tubes in the wound, leave it open, and have the tubes irrigated with Dakin's solution for from 48 to 72 hours.

In comparatively clean wounds, and if there is little tissue damage, drainage is usually unnecessary and inadvisable, particularly in lacerations of the face where the amount of scar formation is of so great importance. These should be closed with interrupted fine silk sutures or horsehair, approximating the skin edges with greatest of care. In deeper wounds, it is thought best to insert a piece of rubber tissue at one end of the wound to take care of serum formation and to provide an exit for purulent exudate should there be an infection present. Interrupted silk sutures are preferred to metal clips in practically all traumatic wounds, because the skin is often difficult to approximate, and the sutures will hold the edges together more firmly.



The treatment of fractures in a small hospital again is not different from the treatment in a larger one. For fractures of the shafts of the long bones of the leg and thigh, suspension traction is used. The chief object in the treatment is to relieve pain and shock and avoid added displacement and trauma. For traction of the extremities, Buck's extension is best for temporary use, or a Thomas splint for transportation. All fractures are x-rayed before reduction and the simplest ones rechecked a few days after reduction. Whenever necessary chloroform or other anesthesia is used during reduction.

In fractures of the bones of the arms, we use a temporary aluminum splint and as soon as edema is gone, we usually put on a plaster splint or a plaster cast if one is necessary.

I might say here that among the most common minor wounds we have to contend with are contusions, abrasions, lacerations, puncture wounds, foreign bodies in eye, foreign body penetration of soft parts, strains and sprains. The chief complications are infections, ulcers, and scar contractions.

Our most common major wounds are fractures, dislocations, crushing wounds, penetrating wounds, loss of members, injury to nerves, blood vessels and viscera and brain injuries. Special trauma such as traumatic hernia, orchitis, traumatic pleurisy, appendicitis and traumatic neurosis is sometimes seen. These may appear singly or be accompanied by one or more of the others.

We had a very interesting example of what we considered a traumatic appendicitis the other day. A young woman was in an automobile wreck, and on admission to the emergency room for treatment and examination, we found that she complained of severe pain in her foot and right chest. Not being able to bear her weight on her foot, it was x-rayed and found to be fractured. X-ray of chest revealed fractured ribs. Ribs on the right side were strapped, aluminum splints applied to foot, and an examination made for any other damage she might have received in the wreck. Finding none, she was told to go home and report back in two days to have a plaster cast put on her foot. On the next day, I was called to see her, and found after careful physical examination and laboratory examination, that she apparently had an acute appendicitis.

She was immediately operated upon and found to have an acute appendicitis which was believed to be of traumatic origin. She had an uninterrupted recovery from the operation but is still wearing a cast on her foot.

In those cases where there are signs of cerebral injury in which no fracture of the vertex can be demonstrated, we consider the fracture as basal until proved otherwise. In some cases of basal fractures, it is not always possible to demonstrate the fracture but severe cerebral injury is frequently obvious as recognized by the symptoms and signs. Traumatic surgeons have long recognized the fact that it is the severity of the brain injury and not the type of bony injury that determines the prognosis of head injuries. We had a young girl in the hospital who was unconscious for about three weeks as a result of an automobile wreck and who was suffering from brain injury although the x-ray of her skull did not disclose any injury. She also received a bad fracture of the femur which, because it was thought she would never recover, was treated more or less conservatively. However, after several days, it was noted that she would probably live. Her leg was looked after more carefully by applying traction with a Thomas splint. Later on, when she was out of danger of shock, a pin was put through the lower end of the femur with traction. The young woman was in bed for some time, but today she walks as well as she ever did.

We had a very interesting case of traumatic aneurysm. A colored patient had a fracture of his tibia and fibula which on x-ray showed a simple transverse break which was put up in an aluminum splint without traction. Because of what appeared to be a large hematoma, he was not placed in a cast. By the time the fracture should have healed and the hematoma absorbed, the enlargement was still there. He was seen by several surgeons, and we decided it was a slow absorbing type of hematoma. At the eighth week, we decided to insert a needle to see if there was any serum or exudate. Finding none, we made a small incision, and the blood spurted to the top of the room. We then knew he had a traumatic aneurysm. Later on, a transfusion was given him, and we operated for the aneurysm. The anterior tibial vessels were ligated

proximately and distally, and an immense sac was removed. I call attention to this case for the purpose of being on guard for traumatic aneurysms where a hematoma would suggest itself. The posterior vessels and collateral circulation took care of the circulation, and at no time did he have edema of his foot.

One evening I was called out in the country to see a small boy who had been kicked in the abdomen by a cow. He was complaining of severe abdominal pain, had abdominal rigidity, and was in shock. A laparotomy was performed that night, and on opening the abdomen we found free blood and a perforated jejunum. The free blood was removed and the hemorrhage checked. The jejunum was repaired, drains placed in position, and the abdomen closed in the usual manner. He had an uneventful recovery.

The most important thing about traumatic surgery, especially in the long drawn out cases, is the financial side of it. About 80 per cent of the patients we have are poor people unable to take care of the expenses themselves; many are transients whom the county refuses to pay for, and this leaves the burden on the doctors and the small hospitals. With the large increase in automobile travel, this burden has become unbearable. There is a simple way out of it, and it behooves the medical profession of Florida to have it settled.

A very simple way would be to add one dollar to each car tag bought each year which would be approximately \$450,000.00 per year and which would be divided according to the mileage of state roads. Every county would have its credit available and with proper proof these funds could be paid out by the county commissioners or some other designated board. This law has been enforced in Ohio and other states for several years and has worked very successfully. I cannot stress too much the importance of, or make too emphatic this point: that if every doctor in the State of Florida would be in a campaign to have this law passed at the next session of the Legislature, we would all benefit from it. The average small town doctor is not rich enough to become a philanthropist and take care of these indigent cases which require prolonged treatment in the hospital, not to say anything about long court trials and damage suits.

#### SUMMARY

1. A small hospital must expect the same types of injuries as a large hospital and treat them according to latest scientific means for the best results.
2. The financial status of patients who are the victims of traumatism is generally poor and should be corrected: a solution has been suggested in the foregoing paper.



### Where?

To the Medical District Meetings.

### Why?

- To hear good scientific papers.
- To meet the officers of the Association.
- To discuss medical problems.
- To renew acquaintances.
- To have a good time.

### When?

- Daytona Beach (C), October 3—Thursday.
- Lake City (B), October 4—Friday.
- Pensacola (A), October 5—Saturday.
- Dunedin (D), October 31—Thursday.
- Ft. Pierce (E), November 1—Friday.
- Miami (F), November 2—Saturday.

**GROWING EVER MORE POPULAR —**

**THE DISTRICT MEETINGS OF THE**

**FLORIDA MEDICAL ASSOCIATION**



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**MEDICAL PREPAREDNESS**

Starting with the June 22 issue, *The Journal of the American Medical Association* inaugurated a section on Medical Preparedness. In this section each week, the *Journal* says, will appear official notices by the Committee on Medical Preparedness of the American Medical Association, announcements by the Surgeon Generals of the Army, Navy and Public Health Service, and other governmental agencies dealing with medical preparedness, and such other information and announcements as will be useful to the medical profession.

Action of the House of Delegates of the American Medical Association authorized the Speaker of the House to appoint ten members of a preparedness committee to serve with the president of the Association, the chairman of the board of trustees, the secretary of the Association, the secretary of the board of trustees and the editor as ex officio members. The following members of the House were appointed: Stanley H. Osborn, Section on Preventive and Industrial Medicine and Public Health; Walter G. Whipple, Massachusetts; Harvey B. Stone, Maryland; James E. Paullin, Section on Practice of Medicine; Fred W. Rankin, Section on Surgery, Gen-

eral and Abdominal; Roy W. Fouts, Nebraska; S. E. Thompson, Texas; Charles A. Dukes, California; John H. O'Shea, Washington; Irvin Abell, Kentucky, General Chairman.

The first official meeting of this Committee on Medical Preparedness was scheduled for July 19. Each constituent state and territorial medical association was asked to nominate a member of its organization to serve as a state representative of the Committee on Medical Preparedness of the American Medical Association. On receipt of the communication, Dr. J. Sam Turberville, president of the Florida Medical Association, nominated Dr. Edward Jelks of Jacksonville and forwarded his name to the A. M. A. as requested.

**INDIVIDUALISM IN MEDICINE**

Properly to practice medicine one must assume the responsibility for his patient. He must remember that on his human understanding and on his personal advice, encouragement and explanation depend that health and future. He cannot pass that duty to another. He must make use of an increasing number of special methods of study which often have to be pursued by colleagues, but in making use of these he must do so intelligently, consulting with his colleague. Only in such manner can he obtain the full assistance which he desires. Cooperation in the mere sense of division of responsibility is not cooperation. The doctor consulted by the patient must still regard himself as the patient's individual adviser if he desires to do his whole duty and obtain the best results.

He will practice better medicine who cooperates with his colleagues in the sense of uniting, perhaps with a number of other practitioners who between them support those laboratories and technicians necessary to supply them the desirable physical, clinical, roentgenologic, bacteriologic and serologic assistance; who takes the responsibility for his own patients; who determines his consultations and chooses his consultants according to the individual conditions; who remembers that the practice of medicine is an affair between two human beings in which the human element is all important and cannot be avoided; that the practice of medicine is a profession; that he who seeks to make it a business or a trade has mistaken his calling.

## ASSOCIATION REPRESENTED AT U. S. P. CONVENTION

At the decennial U. S. P. Convention held at the Willard Hotel, Washington, D. C., on May 14 and 15, the Florida Medical Association was represented by Dr. M. J. Myres, Daytona Beach, Dr. Edwin C. Swift, Jacksonville, and William Emrich, pharmacist, of Orlando.

Scientific meetings were held on May 13 dealing with the many rapid advances in the field of medicine which must be considered in revising the U. S. P. It was voted to revise the Constitution and publish a new edition every five years instead of decennially.

Doctor Myres requested that the subcommittee on scope consider the inclusion of drugs used in sub-tropical and tropical climates. The suggestion was well taken as one of the means of increasing the usefulness of this legal standard.

A revision committee of fifty was elected, being made up of seventeen physicians and thirty-three pharmacists. Dr. P. A. Foote, Director of the School of Pharmacy of the University of Florida, was elected to this body.

## STUDY TO EVALUATE ORIGINAL SEROLOGIC TESTS FOR SYPHILIS

More than five years ago the Committee on Evaluation of Serodiagnostic Tests for Syphilis, in cooperation with the United States Public Health Service, conducted a study to evaluate original serologic tests for syphilis or modifications thereof in the United States. The results of this study were published shortly after the investigation was completed.<sup>1</sup>

Consideration is now being given by the Committee to the organization of a second evaluation study of original serologic tests for syphilis or modifications thereof within the next year. If the need for an investigation of this kind seems to justify the cost, invitations will be extended to the authors of such serologic tests who reside in the United States, or who may be able to participate by the designation of a serologist who will represent them in this country. The second evaluation study will be conducted utilizing methods comparable to those employed in the first study.<sup>2</sup>

Serologists who have an original serologic test for syphilis or an original modification thereof and who desire to participate in the second evaluation study should submit their applications not later than October 1, 1940. The applications must be accompanied by a complete description of the technic of the author's serologic test or modification. All correspondence should be directed to the Surgeon General, United States Public Health Service, Washington, D. C.

<sup>1</sup> Ven. Dis. Inform., Washington, June 1935, **16**: 189.

J. A. M. A., Chicago, June 8, 1935, **104**: 2083.

<sup>2</sup> J. A. M. A., Chicago, Dec. 1, 1934, **103**: 1705.

## FLORIDA SECTION—SOUTH- EASTERN SURGICAL CONGRESS

The Florida Section of the Southeastern Surgical Congress will hold its seventh annual clinical conference at the Jackson Memorial Hospital, Miami, Saturday, August 31, from 10 a. m. to 4 p. m. An excellent program has been arranged.

### PROGRAM

R. L. Sanders, Memphis: "Complications of Peptic Ulcer."

William G. Hamm, Atlanta: "Skin Grafting."

T. C. Davison, Atlanta: "Breast Tumors" (Moving Pictures).

Herbert Acuff, Knoxville: "Surgical Phases of Lung Abscess."

Edward Jelks, Jacksonville: "Carcinoma of the Stomach."

Louie M. Limbaugh, Jacksonville: "Medical Care of the 'Surgical' Diabetic."

B. T. Beasley, Atlanta: "Uterine Displacements with Demonstration of an Original Apparatus Designed to Treat These Conditions."

As is the custom of this organization, no set papers will be read. Clinical cases will be presented and discussed. Arrangements for the conference are in charge of the following committees:

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*Editor's Note: Due to its general interest, Doctor Swift has requested the publication of the following letter which outlines the program of the new Bureau of Professional Relations of the School of Pharmacy, University of Florida.*

June 21, 1940

Dr. E. C. Swift, Chairman  
Inter-relationship Committee  
Florida Medical Association, Inc.  
Jacksonville, Florida

My dear Doctor Swift:

The pharmacists were happy to hear that the House of Delegates of the Florida Medical Association had approved the plan of the Florida State Board of Pharmacy to finance in our school a Bureau of Professional Relations.

The purpose of this bureau is to solve mutual problems affecting the physicians, dentists and pharmacists in our state. Inasmuch as the pharmacists compound and dispense prescriptions, the inaugural work will be in this field. By an educational program put before these three professions, we hope to eliminate many useless duplications of drugs in favor of those in the U. S. P. and N. F. Along with the A. M. A. the plan opposes mere mixtures of U. S. P. or N. F. drugs sold under coined names at fancy prices; products into which no research has entered. The last decade has witnessed an alarming increase in such items and their average life is short. Professional men cannot even begin to remember all of them.

This program follows in the path of current medical thought. More than thirty years ago the American Medical Association organized the Council of Pharmacy and Chemistry for the purpose of recognizing new drugs of merit and began the annual publication of New and Nonofficial Remedies. Further, as you know, the A. M. A. publishes "Useful Drugs," a list to aid the movement toward elimination of the mass of useless or superfluous drugs. Many state medical examining boards are limiting their examinations on drug therapy to this list. Programs similar to the one we plan have been successful in several other states such as Maryland, Minnesota, New York and others. In some states the medical associations have cooperating committees.

With the assistance and approval of your committee and the entire Florida Medical Association we propose to compile a formulary. This will be printed on 3x5 cards, placed in a steel file and donated to each physician as suggestions for his drug therapy. Because we believe there is a demand for hospital formularies in our state, we shall incorporate items from well known leading hospitals. Within the next twelve months we hope to have the Associate Director of this Bureau call on the physicians and present them with the formulary.

This program should benefit all parties concerned. Many patients can get equivalent drug therapy at lower cost. This means that they will have more money to pay bills incurred with physicians and pharmacists. It will combat the reading of one word prescriptions by patients which frequently results in self medication later, not alone for him but oftentimes his friends. We are opposed to counter-prescribing by pharmacists and have faith that this plan will discourage it. Prescribing should be entirely in the hands of physicians and dispensing should be done from the prescription room. To reduce the high cost of medical care is a step in combatting socialized medicine. Our plan will not tread on the toes of reputable drug manufacturers. From their great research laboratories come many new vital discoveries and products which cannot be compounded in the drug store. Today these manufacturers are caught in a false "What's New" competition resulting in thousands of items in their catalogs. They would gladly drop many of them (with overhead expenses) if this fictitious demand could be stopped. Naturally the wholesalers and retail pharmacists feel the same for their shelves are burdened with the deluge and the consumer unfairly pays for it.

The sympathetic cooperation of you and your committee as well as of your association is deeply appreciated. I believe with the others that this undertaking is sound and timely and that we are on the threshold of a better and cheaper materia medica for the people of our great state.

Sincerely yours,

P. A. FOOTE,  
Director, School of Pharmacy,  
University of Florida.

## BIRTHS, MARRIAGES AND DEATHS

## BIRTHS

Dr. and Mrs. O. E. Harrell of Jacksonville announce the birth of a son, John Needham, on June 4, 1940.

## MARRIAGES

Dr. Wilton E. Tugwell and Miss Virginia Noel Johnson of Pensacola were married May 10, 1940.

\* \* \*

Dr. Mitchell L. Moran and Miss Irene Batchelder of St. Petersburg were married on June 12, 1940.

## DEATHS

Dr. George E. Adams of Jacksonville died on June 11, 1940.

\* \* \*

Dr. M. E. Quina of Pensacola died on June 12, 1940.

## STATE NEWS ITEMS

At the semiannual meeting of the State Board of Medical Examiners, held in Tampa, June 17 and 18, the following officers were elected: President, Dr. B. A. Chapman, Jacksonville; Vice-President, Dr. H. D. Van Schaick, Jacksonville; and Secretary, Dr. W. M. Rowlett, Tampa. Mr. John W. Prunty of Miami was reappointed attorney for the Board and Mr. Earl B. Askew of St. Petersburg was appointed special attorney.

\* \* \*

Dr. J. C. Robertson was appointed chief physician of the State Hospital at Chattahoochee, to succeed the late Dr. Ralph E. Stevens. Doctor Robertson has been on the hospital's medical staff for eight years.

\* \* \*

Members of the Florida Medical Association who attended the meeting of the American Heart Association in New York City, June 7 and 8, were: John F. Busey, Lake City; Samuel Aronovitz, M. J. Flipse, Robert M. Harris, Carlos P. Lamar, E. Sterling Nichol and M. S. Saslaw, Miami; David W. Exley, M. A. Kugel, Julius R. Pearson and Maurice Zimmerman, Miami Beach; Meredith Mallory, Orlando; J. E. Harris and A. Lamar Matthews, Sarasota.



Dr. Duncan McEwan of Orlando attended the Thoracic Surgery meeting in Cleveland before going to the A. M. A. meeting in New York City.

\* \* \*

There were 12,864 physicians registered at the annual meeting of the American Medical Association held in New York City, June 10-14. This registration exceeded by more than 2,500 the largest number ever registered at a previous meeting. The following 98 doctors from Florida were in attendance at this meeting:

*Bartow:* Chester H. Murphy, William F. Peacock. *Bradenton:* John F. Mason. *Coral Gables:* Warren W. Quillian. *Daytona Beach:* J. Ralph Vallotton. *Delray Beach:* Graham W. King, Jr. *Ft. Lauderdale:* Elliott M. Hendricks, Henry J. Peavy, Francis D. Pierce, Leigh F. Robinson. *Jacksonville:* Charles W. Boyd, John D. Ferrara, Gordon H. Ira, Edward Jelks, Arthur J. Logie, W. McL. Shaw, Lauren M. Sompayrac, H. Marshall Taylor. *Marianna:* N. A. Baltzell.

*Miami:* Samuel Aronovitz, Frederick H. Dieterich, M. Jay Flipse, Elmo D. French, Roy J. Holmes, Walter C. Jones, Jr., Carlos P. Lamar, Young C. Lott, John D. Milton, John T. Mitchell, Frank R. Morrow, E. Sterling Nichol, Homer L. Pearson, Jr., J. Randolph Perdue, Harold Rand, Wiley M. Sams, Milton S. Saslaw, John B. Seeds, W. Clay Shaw, Franz H. Stewart, M. Paul Travers, P. B. Welch, Scheffel H. Wright. *Miami Beach:* James R. Cogan, Max Dobrin, Elias Freidus, Abraham R. Hollender, W. T. Hotchkiss, Maurice A. Kugel, George N. Leonard, William Linder, Meyer B. Marks, Cayetano Panettiere, Frazier J. Payton, Julius R. Pearson, Maurice Zimmerman.

*Orlando:* Charles J. Collins, Spencer A. Folsom, Frank D. Gray, G. Tayloe Gwathmey, L. C. Ingram, Duncan T. McEwan, Meredith Mallory, W. Grady Page. *Palatka:* Allen P. Gurganious. *Palm Beach:* George E. Cram, Bailey B. Sory, Jr. *Panama City:* Donald S. Fraser. *Pensacola:* Herbert L. Bryans. *Quincy:* William W. Massey. *St. Augustine:* Reddin Britt.

*St. Petersburg:* Arnold S. Anderson, James A. Bradley, Annette M. Feaster, O. O. Feaster, W. C. McConnell, Norval M. Marr, George E. Miller, Robert J. Needles, J. Braden Quicksall, H. Tuttle Stull, Alvin J. Wood. *Sanford:* Thomas F. McDaniel. *Sarasota:* J. E. Harris, A. Lamar Matthews. *Sebring:* Hartley E. Boorum. *Tampa:* A. R. Beyer, A. M. Bidwell, E. W. Bitzer, J. C. Dickinson, Frank C. Metzger, Harold G. Nix, Alvord L. Stone, John C. Vinson. *West Palm Beach:* George M. Dawson, S. Ward Fleming, V. M. Johnson, Lloyd J. Netto. *Winter Park:* Rosalie S. Morton.

\* \* \*

Dr. H. Marshall Taylor of Jacksonville was awarded the degree of Doctor of Science by John B. Stetson University at DeLand the early part of June.

\* \* \*

Dr. W. T. Simpson of Winter Haven was recently elected president of the local Rotary Club.

All members of the Florida Medical Association are cordially invited to attend the annual picnic and barbecue of the Orange County Medical Society, Thursday afternoon, August 8, 1940.

\* \* \*

Colored reproductions of Dean Cornwell's new painting, "Osler at Old Blockley," suitable for framing, may be obtained free by addressing requests to John Wyeth & Brother, Inc., 1600 Arch Street, Philadelphia, Pa. Every reader of this Journal should possess one of these beautiful pictures. Send for yours today.

\* \* \*

Dr. Claude Anderson of Orlando attended a meeting of the ex-Fellows of the Lahey Clinic, as well as class and alumni meetings at Jefferson Medical College, early in June.

\* \* \*

Dr. Frederick K. Herpel of West Palm Beach announces the removal of his offices to 513-519 Harvey Building. Doctor Herpel's practice is limited to roentgenology.

\* \* \*

Dr. J. C. Davis of Quincy delivered an address on "Acute Cholecystitis" at the recent Postgraduate Assembly of Emory Alumni in Atlanta.

\* \* \*

Dr. Sam J. Roberts of Miami attended the annual conference of the American Association of Medical Milk Commissions which met with the Certified Milk Producers' Association of America in New York City the early part of June. Doctor Roberts is chairman of the Dade County Medical Milk Commission.

\* \* \*

Dr. William F. Bay of Bradenton enrolled for the summer term for a course in public health and syphilology at the university in Ann Arbor, Michigan, the latter part of May. Doctor and Mrs. Bay will visit in Columbus and Cleveland and return home late in September.

\* \* \*

Dr. John H. Mitchell of Jacksonville was recently installed as president of the local Exchange Club.

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RALPH EDWIN STEVENS

Dr. Ralph E. Stevens, for nearly four years chief of the medical staff at the State Hospital at Chattahoochee, died suddenly on June 6 in Sanford, where he had stopped for a visit with his sister, Miss Rebecca Stevens, while enroute to Cuba to attend the International Convention of Rotary. His wife, who was to accompany him to Cuba, was with him at the time of his death. His sister was also to have been a member of the party.

Born in Susquehanna, Pennsylvania, in 1891, he moved with his parents to Sanford in 1903, where his father, the late Mr. Henry R. Stevens, was the first mayor. He was graduated from the Seminole high school there and later attended the University of North Carolina. He received his medical degree from Jefferson Medical School in Philadelphia.

After his graduation from college, he opened an office for practice in Sanford, but when the United States declared war, he enlisted in the army medical corps as a first lieutenant and served overseas with the 305th Engineers of the Eighteenth Division. Later he was promoted to captain and served as regimental surgeon. He received from General John J. Pershing a citation for distinguished and exceptional gallantry, and was decorated with the Silver Star Medal, one of the most coveted battle decorations awarded by the United States Army.

He retired from the 124th Infantry of the National Guard with the rank of Colonel about two years ago.

Doctor Stevens was a member of the Florida, Southern, and American Medical Associations, as well as of the Southeastern Surgical Conference and the Association of Military Surgeons. He was also a member of Morocco Temple Shrine. His Legion membership was with Post 14 in St. Petersburg.

Doctor Stevens was appointed to the Chattahoochee staff during the superintendency of Col. Preston L. Ayers. The duration of his administration there has seen many changes and improvements in the medical staff and hospitalization.

Doctor Stevens was buried with full military rites which were arranged by Major George A. DeCottes, mayor of Sanford and commanding officer of the Sanford National Guard.

Surviving are his widow, Mrs. Ollie Vera Lloyd Stevens, and two children, Dorothy and Ralph, Jr.; also his sister, Miss Rebecca Stevens of Sanford.

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## GEORGE ELBERT ADAMS

Dr. George E. Adams died June 11, at his home in Jacksonville, at the age of 54 years.

Born in Columbia County, he attended the Medical College of South Carolina from which he received his M. D. degree in 1911. He was licensed to practice in Florida the following year. For the past eighteen years he has lived in Jacksonville where he built up a large practice and where, for six years, he has served as county physician. He was a member of the Duval County Medical Society, the Florida Medical Association and the American Medical Association.

Doctor Adams is survived by his widow, Mrs. Carrie E. Adams, five children, Dr. Mark Adams, Edward Adams, Herlong Adams, Mrs. R. R. Turnipseed and Miss Betty Adams, all of Jacksonville.

---

## M. W. SPEARMAN

The following resolutions on the death of Dr. M. W. Spearman were recently passed by the Suwannee River Valley Medical Society:

WHEREAS, the Great Physician has called from our midst a fellow worker and friend, Dr. Mathew Whitfield Spearman, who, during his sojourn among us, endeared himself to a large circle of patients and friends; and

WHEREAS, the members of this Society have suffered a personal loss in the death of a faithful worker who gave his time and talents freely to the needy, and who at all times upheld the dignity and high ideals of his profession;

BE IT RESOLVED, That we officially and individually deplore the loss of a professional brother whose place will be hard to fill, and who gave the best years of his life to the alleviation of human suffering.

BE IT FURTHER RESOLVED that this resolution be included in the minutes of this Society, and that a copy be furnished his bereaved family, the local press, and the Florida Medical Association.

By the Committee:

L. J. Arnold, Jr.  
H. S. Howell.  
J. F. Pitman.

---



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## COMPONENT COUNTY SOCIETIES

## BROWARD

The Broward County Medical Society is 100% paid for 1940. Officers of this society are: president, L. B. Elliston; vice president, R. E. Blount; secretary-treasurer, E. C. Chamberlain.

\* \* \*

## DADE

The June meeting of the Dade County Medical Society was held in the Sunshine Room of the Ingraham Building on the evening of the 4th. A symposium on "Gallbladder Disease" comprised the scientific program, presented as follows:

"Symptoms and Diagnosis"—R. M. Fleming.

"Pathology"—Iva C. Youmans.

"Medical Treatment"—D. A. Marion.

"Surgical Treatment"—George D. Lilly.

\* \* \*

## DE SOTO-HARDEE-HIGHLANDS-CHARLOTTE-GLADES

The regular monthly meeting of the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society was held in Wauchula Tuesday evening, May 14, when the visiting doctors were banqueted by the local members of the society. Dr. H. V. Weems of Sebring, secretary, read the minutes of the last meeting; Dr. I. W. Chandler of Avon Park gave a report of the annual meeting of the State Association. Dr. J. R. Boulware, Jr. of Lakeland presented a paper on "Roseola Infantum."

Present were: Drs. G. F. Highsmith and C. W. Pease of Arcadia; I. W. Chandler and G. S. McKnight of Avon Park; W. S. Pyatt of Bowling Green; J. R. Boulware, Jr., and S. Edgar Watson of Lakeland; H. E. Boorum and H. V. Weems of Sebring; M. A. Collier, M. C. Kayton, Allen A. Poucher and B. D. Spears of Wauchula.

\* \* \*

## DUVAL

Dr. James L. Borland of Jacksonville was principal speaker at the meeting of the Duval County Medical Society held on the evening of June 4 in the State Board of Health building. His subject was "Evaluation of the Role of Intestinal Protozoa in Man." A business session followed, after which refreshments were served.

## PASCO-HERNANDO-CITRUS

Dr. and Mrs. P. J. Hudson and Dr. and Mrs. W. B. Moon entertained the Pasco-Hernando-Citrus County Medical Society at Crystal River, Thursday afternoon, June 13, on board Doctor Hudson's pleasure boat, *Elmedico*. Leaving the dock at 2:10, the party returned at 7:30 after a trip of 7 miles down the river and 3 miles out into the Gulf. Fishing was enjoyed by several members of the party, after which a delicious fish dinner was served by Dr. and Mrs. Hudson.

Dr. W. H. Walters extended the Society's thanks to Doctors Hudson and Moon for this splendid entertainment.

Attending this outing were: Dr. Edwin H. Brown, Miss Lillian Cottle, Dr. J. T. Bradshaw, Dr. and Mrs. G. R. Creekmore, Dr. and Mrs. George Dame, George Dame, Jr., John Dame, Dr. and Mrs. Leland H. Dame, Dr. and Mrs. S. C. Harvard, Dr. and Mrs. P. J. Hudson, Miss Margaret Hudson, James F. Hudson, Dr. W. Wardlaw Jones, Dr. and Mrs. W. B. Moon, Dr. W. H. Walters, and Miss Dorothy Fletcher.

\* \* \*

## PINELLAS

Dr. D. F. H. Murphey of St. Petersburg was principal speaker at a meeting of the Society held on the evening of June 7. His subject was "A Case of Bleeding in the Newborn."

At the meeting held on June 21, Dr. J. P. Rowell presented a paper on "Treatment of Arthritis" and Dr. M. E. Black reported "Two Cases of Chronic Botulism."

\* \* \*

## SEMINOLE

The Seminole County Medical Society was host, on the afternoon of May 23, to the members of the Orange County Medical Society, at a yachting party aboard the *Skylark*. The party left early in the afternoon and after cruising along the river, anchored and enjoyed a buffet supper. Present from Orlando were: Drs. Claude Anderson, Walter Weed, Fred Mathers, William Mitchell, Don Robertson, Sam F. Ricker, Eugene Jewett, Palmer Kunderert, Joseph Seltzer, C. C. Collins, T. A. Neal, Henry Spiers, Richard H. Walker, Jr., and Dr. Elwyn Evans of Winter Park.

Sanford hosts included: Drs. W. H. Garner, Samuel Puleston, C. L. Park, G. S. Selman, Douglas G. Scott, J. N. Tolar, A. W. Knox, and T. F. McDaniel.



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\*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL  
OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**A Statistical Study of Present-Day Methods Used in the Treatment of Tumors of the Bladder, ORR, LOUIS M.; CARSON, RUSSELL B.; and NOVAK, WILLIAM F., Orlando, *J. Urol.* 42: 778-788 (November), 1939.**

This paper is an analysis of more than 26,000 cases of bladder carcinoma. Its value is limited because the data were obtained by means of questionnaires.

Methods of treatment were divided into conservative and radical. By radical treatment was meant total cystectomy and ureteral transplantation. Answers were received from 267 surgeons. Of these, 221 favored conservative methods of treatment and only 8 favored radical treatment. Of all the methods used in the treatment of bladder tumors, 51 considered that segmental bladder resection gave the most comfort and the longest life. An analysis of 353 cases of total cystectomy and ureteral transplantation showed an average mortality rate of 33 per cent, attending operation; 92 patients died the first year after operation and 18 patients have lived more than 5 years. This emphasizes again the necessity for early diagnosis of cancer of the bladder.

**Short Wave Diathermy in Treatment of Nasal Sinusitis, HOLLENDER, A. R., Miami Beach, *Arch. Otolaryng.* 30: 749-754 (November), 1939.**

Short wave diathermy, because of producing deep heat, is useful in the treatment of sinus infection. Acute sinusitis is cured of itself and short wave diathermy must not be employed to the exclusion of all other recognized therapeutic measures. It does not cure chronic sinusitis, when used alone or in connection with other nonsurgical measures. It is effective in hastening the abatement of symptoms and shortening the course of the disease. Short wave diathermy, however, is employed in any sinus infection without regard for intranasal and sinal ventilation and drainage.

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DR. M. J. L. HOYE, Supt.

Formerly sixteen years Superintendent of East Mississippi State Hospital

Perforation of the Cervical Esophagus, SNYDER, JOHN W., Miami, *South. M. J.* 32: 1080-1084 (November), 1939.

Perforation of the esophagus is a serious accident because of the danger of infection which will invariably follow.

Most commonly it is produced by household objects and the most frequent of these is the chicken bone. Such a perforation may produce a localized abscess in the fascial planes of the neck, but more commonly a mediastinitis, extending into the chest, is seen. A study of the anatomy of the fascial planes of the neck, the relation of the esophagus and the thyroid and trachea to the fascial planes is described. Adequate and early drainage is most important in the treatment.

The author discusses a case in which the chicken bone perforated the esophagus near the six cervical vertebrae. Drainage was established by later thyroid approach. Recovery was complete. A fistula closed within two weeks.

The author emphasizes the harmful effects of the use of a probang.

Urologic Determination of Fecundity in the Male, HOLMES, ROY J.,; COPLAN, M. M.; and WOODS, FRANK M., Miami, *South. M. J.* 32: 1235-1238 (December), 1939.

The role of the male in nonproductive marriage has changed from one of innocence to a contributory status in a large percentage of cases and complete guilt in a goodly number.

Stress is laid upon the necessity for thorough and complete examination of the male from every standpoint that might have any bearing upon reproduction. This includes, in addition to a comprehensive spermatozoal study, a detailed history regarding sex life, venereal and urologic disease, injuries, previous marriages and examinations for sterility.

Examination of semen should include physical appearance and viscosity, hydrogen ion concentration, amount, number of spermatozoa per cubic centimeter, presence of abnormal forms and endurance of motility of the spermatozoa.

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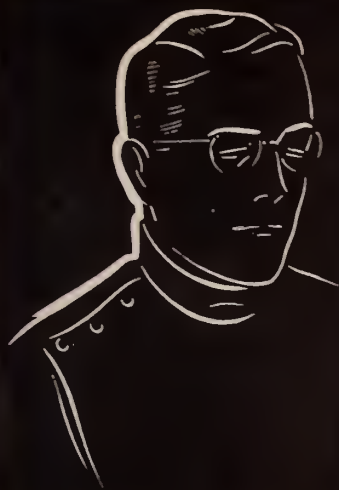
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## ADVERTISERS' NOTES

### ORAL BISMUTH THERAPY

A survey of the most important contributions dealing with economic aspects of syphilis (*Am. J. M. Sc.*, 199: 586, 1940) emphasizes the staggering cost of this disease to the individual, the community, and the nation at large. The total cost of syphilis is enormous, even in these days when governments spend millions or billions of dollars daily. Treatment will wholly prevent this unnecessary expense. Untreated syphilis is a luxury for either individual or community.

The minimum number of persons in the United States constantly in need of medical care because of syphilis is estimated as 683,000. Annually, 500,000 cases of early syphilis seek authorized medical care. The probability of acquiring the infection sometime during life is one out of ten.

The usefulness of bismuth intramuscularly as an anti-syphilitic agent has been demonstrated beyond question, and more recently the development of a soluble and clinically useful bismuth preparation suitable for oral administration has been accomplished in Sobisminol Mass, Lilly. It should be administered under the continuous supervision of the physician. Dosage may be controlled with certainty by estimation of the bismuth excretion in the urine, using Bismuth Excretion Test Tablets, Lilly.

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### PAPAYA

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As is well known by the medical profession, papaya is the source of papain which is commonly used in digestive preparations. It is claimed that papaya is of value to those who have sensitive stomachs and who have difficulty in digesting food; also, that papaya has value in colitis and intestinal disorders. Many Floridians will take the oath that they have been benefitted by the use of papaya in cases of duodenal ulcers. The product should be of value in infant feeding, especially where babies cannot easily assimilate milk, for papaya dissolves milk curds.

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<sup>1</sup> Cooke, R. A., and Stull, A.: *J. Allergy* 4:87, 1933 and previous papers.

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## DUVAL AUXILIARY

Mrs. Robert B. McIver entertained the Woman's Auxiliary to the Duval County Medical Society at her beach home at Ponte Vedra in June.

Climaxing the year's work under the splendid leadership of Mrs. C. E. Royce, annual reports from all officers and committee chairmen showed a marked increase in the activities of the Auxiliary during the past year.

Mrs. William Kirk, past president of the Auxiliary, gave a most interesting book review of *Doctors on Horseback* by James Thomas Flexner, with special emphasis on Dr. Benjamin Rush, born in 1745 in Philadelphia, Pennsylvania.

Mrs. Kirk stated that Doctor Rush was considered one of the most powerful and influential medical doctors in America. He was also one of the signers of the Declaration of Independence. His medical theories were accepted until about the middle of the nineteenth century. His humane treatment of the insane won for him national recognition and his services as an Army physician during the Revolutionary war further increased his popularity as America's foremost physician. While his method of treating yellow fever by bleeding was later disproved, he is still considered by some as the Father of American Medicine. He also became famous as America's greatest temperance reformer, because of his keen interest in alcohol addicts. It is said that he laid the foundation for psychoanalysis.

After his death in April, 1813, delegates were sent from forty different states to visit his grave and plant an oak tree to his memory for his noble contribution to Christian temperance education.

Officers elected for the coming year were Mrs. Victor A. Hughes, president; Mrs. J. G. Lysterly, vice-president; Mrs. John D. Ferrara, secretary; Mrs. Donald M. Baldwin, treasurer.

Committee chairmen were Mrs. E. W. Veal, press and publicity; Mrs. F. G. King, public relations; Mrs. J. W. Hayes, philanthropic; Mrs. Raymond King, Hygeia; Mrs. F. W. Krueger, legislation; Mrs. C. E. Royce, parliamentarian; Mrs. William H. McCullagh, historian; Mrs. S. R. Norris, social; Mrs. John F. Lovejoy, exhibits.

During the social hour a delicious ice course was served by the hostess. About 25 members were present.

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## BOOKS RECEIVED

*Acknowledgment of books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.*

**MODERN MEDICINE IN THE UNITED STATES: PAST ACHIEVEMENTS AND SOLUTION OF PRESENT DAY PROBLEMS.** By S. Adolphus Knopf, M. D., formerly Professor of Phthisiotherapy, New York Postgraduate Medical School, Columbia University. This is a summary of present economic conditions relating to the practice of medicine. Doctor Knopf points out the impracticability of the various schemes advanced for the socialization of medical practice and offers a suggestion for increasing the scope of medical care to the indigent without placing the medical profession under the rule of lay bureaus. Paper, Pp. 40. New York: The Potts Memorial Hospital for Rehabilitation.

**THE PATIENT'S DILEMMA: THE QUEST FOR MEDICAL SECURITY IN AMERICA.** By Hugh Cabot, M. D., Consultant and Teacher, Mayo Clinic. Comprises eleven chapters, as follows: (1) The Impact of Scientific Discoveries on Modern Medical Practice; (2) The Elements of Good Medical Care; (3) Good Medical Care; (4) The Price vs. the Cost of Good Medical Care; (5) Estimates of Cost of Good Medical Care; (6) Cost of Medical Care in Relation to Method of Delivery; (7) Standards of Good Medical Care and their Maintenance; (8) The Search for Medical Security; (9) How Finance Good Medical Care; (10) The Government and Medical Care; (11) Medicine of the Future. Cloth, Pp. 284. Price \$2.50. New York: Reynal & Hitchcock, Inc.

**BIOCHEMISTRY OF DISEASE.** By Meyer Bodansky, Ph. D., M. D., Director of the John Sealy Memorial Laboratory and Professor of Pathological Chemistry, University of Texas School of Medicine, and Oscar Bodansky, Lecturer in Biochemistry, Graduate Division, Brooklyn College. "Most physicians", the authors state, "receive the major part of their biochemical training during the first year of medical school. For lack of clinical experience at this state, they fail to appreciate the medical relevance of many of the principles which are presented to them. . . . The writing of this book was undertaken, consequently, with the conviction that a systematic presentation of the biochemical aspects of the various diseases, arranged according to clinical entities, would be of distinct value and use to the physician". Included in this comprehensive volume are chapters on Diseases of the Blood, Heart, Respiratory Tract, Kidney and Urinary Tract; disorders of the Digestive Tract, the Liver and Biliary Tract; diseases of the Pancreas, Adrenals, Pituitary, Thyroid, Parathyroids, Bones, Muscles, as well as other miscellaneous disorders. Cloth, Pp. 684, illustrated with numerous graphs. Price \$8.00. New York: The Macmillan Company, 1940.

**ESSENTIALS OF THE DIAGNOSTIC EXAMINATION.** By John B. Youmans, B. A., M. S., M. D., Associate Professor of Medicine and Director of Postgraduate Instruction, Vanderbilt University Medical School. The author states that this book has been written on the basis of the experience he gained while teaching physical diagnosis and clinical laboratory methods to practitioners during the past ten years. Its purpose is to "assemble in a single volume the minimum of diagnostic methods and procedures needed in the general practice of medicine and available to all physicians." The volume is divided into three parts: (1) The History and the Physical Examination; (2) Laboratory Tests, and (3) Miscellaneous Tests. Fabrikoid, Pp. 417, beautifully illustrated. Price \$3.00. New York: The Commonwealth Fund, 1940.

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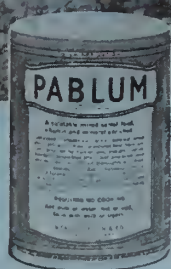
SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville....	Jacksonville, 1941
Florida Medical Districts:			
A—Northwest .....	B. A. Wilkinson, Tallahassee ....	Stewart Thompson, Jacksonville....	Pensacola, Oct. 5, 1940
B—North Central .....	William S. Nichols, Lake City....	" " "	Lake City, Oct. 4, 1940
C—Northeast .....	Robt. B. McIver, Jacksonville....	" " "	Daytona Beach, Oct. 3, 1940
D—Southwest .....	W. C. McConnell, St. Petersburg	" " "	Dunedin, Oct. 31, 1940
E—South Central .....	A. M. Sample, Ft. Pierce .....	" " "	Ft. Pierce, Nov. 1, 1940
F—Southeast .....	Kenneth Phillips, Miami .....	" " "	Miami, Nov. 2, 1940
Alabama Medical Association....	Samuel A. Gordon, Marion.....	D. L. Cannon, Montgomery .....	Mobile, Ala., Apr. 15-17, 1941
Georgia, Medical Assn. of .....	J. C. Patterson, Cuthbert .....	E. D. Shanks, Atlanta .....	Macon, May 13-16, 1941
Florida—			
Chapter, Am. College Phys. ....	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami .....	Jacksonville, 1941
State Dental Society .....	E. B. Penn, Miami .....	E. C. Lunsford, Miami .....	St. Petersburg, Nov., 1940
Soc. of Derm. and Syph. ....	Alan Brown, Jacksonville.....	Lauren M. Sompayrac, Jacksonville	Jacksonville, 1941
East Coast Medical Association	I. M. Hay, Melbourne .....	J. S. Stewart, Miami .....	Miami, 1940
State Hospital Association .....	W. L. Shackelford, W. Palm Bch.	Mr. T. F. Alexander, Jacksonville..	New Orleans, 1941
Assn. of Industrial Surgeons .....	A. M. Bidwell, Tampa .....	T. H. Roberts, Lakeland .....	Jacksonville, 1941
Medical Postgraduate Course	Turner Z. Cason, Jacksonville	Chairman	
Soc. of Ophthal. & Otol. ....	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami .....	Jacksonville, 1941
State Nurses Association .....	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Pediatric Society .....	Warren W. Quillian, Coral Gables	G. N. Leonard, Miami Beach .....	Fall, 1940
Pharmaceutical Association .....	Mr. S. F. Harris, Jacksonville..	Mr. A. W. Morrison, Miami .....	
Public Health Association .....	A. B. McCreary, Jacksonville....	E. M. L'Engle, Jacksonville .....	Tampa, Dec. 5-7, 1940
Radiological Society .....	J. H. Lucinian, Miami .....	E. M. Hendricks, Ft. Lauderdale...	Jacksonville, 1941
Railway Surgeons' Association ..	Leland F. Carlton, Tampa .....	W. C. Page, Cocoa .....	Jacksonville, 1941
Tuberculosis & Health Assn. ....	Mr. E. M. Newald, Orlando .....	Mrs. C. R. Whitaker, Eustis .....	
Chattahoochee Valley Med. Assn.	M. Y. Dabney, Birmingham .....	Frank K. Boland, Atlanta .....	Albany, Ga., July 9-11, 1940
Gulf Coast Clinical Society .....	J. H. Dodson, Mobile .....	C. C. Rouse, Mobile .....	
Southeastern Derm. Assn. ....	Jack Jones, Atlanta .....	Howard Hailey, Atlanta .....	Atlanta, Ga., Sept. 1, 1940
Southeastern Surgical Congress...	Irvin Abell, Louisville .....	B. T. Beasley, Atlanta .....	Richmond, Va., Mar., 1941
Southern Medical Association....	Arthur T. McCormack, Louisville	Mr. C. P. Lorz, Birmingham .....	Louisville, Ky., Nov. 12-15, 1940
Suwannee River Medical Society	T. H. Bates, Lake City .....	H. S. Howell, Lake City .....	

COMPONENT SOCIETIES BY DISTRICTS

COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
				Total	Paid	
Bay	Amie H. Lisensby, M.D. Panama City	William C. Roberts, M.D. Panama City		11	100%	A-1-'42 W. C. Roberts, M.D. Panama City
Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1403 Pensacola	2nd Tuesday 8:00 P. M.	43	35	
Walton-Okaloosa	A. G. Williams, M.D. Lakewood	R. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	Northwest District (A) Pensacola Oct. 5, 1940
Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		8	5	
Franklin-Gulf	Thos. Meriwether, M.D. Wewahatchika	J. R. Norton, M.D. Fort St. Joe	3rd Thursday	7	100%	A-2-'41 B. A. Wilkinson, M.D. Tallahassee
Jackson *Calhoun	W. R. Wandeck, M.D. Marianna	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	12	9	
Leon-Gadsden-Liberty- Wakulla-Jefferson	Francis T. Holland, M.D. 208 Midyette-Moor Bldg. Tallahassee	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	39	37	
*Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	14	8	B-3-'41 W. S. Nichols, M.D. Lake City
Madison-Suwannee	J. M. Price, M.D. Live Oak	L. H. Black, M.D. Live Oak		9	5	
Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Irris	John C. Ellis, M.D. Irris	Last Friday 8:00 P. M.	7	8	
Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30	21	B-4-'42 J. L. Summerlin, M.D. Gainesville
Marion *Levy	Henry O. Doster, M.D. 9 No. Magnolia St. Ocala	R. C. Cumming, M.D. Commercial Bank Bldg. Ocala	3rd Thursday 12:30 P. M.	24	100%	
Pasco-Hernando- Citrus	Wm. H. Walters, Jr., M.D. Lacoochee	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	100%	North Central District (B) Lake City Oct. 4, 1940
Duval *Clay, Nassau	Chas. B. Mabry, M.D. 439 St. James Bldg. Jacksonville	Lauren M. Sompayrac, M.D. 409 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	179	178	C-5-'41 R. B. Melver, M.D. Jacksonville
St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10	9	N. E. District (C) Daytona Beach Oct. 3, 1940
Putnam	G. M. Ziegler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	12	10	C-6-'42 Maxmillian Stern, M.D. Daytona Beach
Volusia *Flagler	L. V. L. Brown, M.D. DeLand	R. L. Miller, M.D. 238 1/2 S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	42	35	
Hillsborough	John R. Boling, M.D. 1207 First Nat. Bk. Bldg. Tampa	James S. Grable, M.D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	112	99	D-7-'41 W. C. McConnell, M.D. St. Petersburg
Manatee	M. M. Harrison, M.D. Professional Bldg. Bradenton	W. B. Wentzel, M.D. Box 245 Bradenton	3rd Tuesday 7:00 P. M.	14	100%	
Pinellas	John A. Herring, M.D. 259 Third St., No. St. Petersburg	W. C. McConnell, M.D. 213 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	104	100%	Southwest District (D) Dunedin Oct. 31, 1940
Sarasota	Millard B. White, M.D. 151 S. Pineapple Ave. Sarasota	Stanley T. Martin, M.D. 301 Main St. Sarasota	2nd Tuesday 8:30 P. M.	16	11	
DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	100%	D-8-'42 H. V. Weems, M.D. Sebring
Lee *Collier, Hendry	A. S. Byle, M.D. 311 2nd St. Fort Myers	Fred D. Bartleson, M.D. Fort Myers	3rd Friday 7:30 P. M.	14	100%	
Polk	Henry Fuller, M.D. Mulberry	Jere W. Annis, M.D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62	56	
Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Tuesday	11	10	E-9-'42 J. R. Chappell, M.D. Orlando
Lake *Sumter	W. L. Ashton, M.D. Umatilla	Oliver Emerson, M.D. Tavares	1st Thursday 12:30 P. M.	18	11	
Orange *Osceola	Chas. J. Collins, M.D. 209 Exchange Bldg. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	84	83	
Seminole	Wade H. Garner, M.D. Sanford	Douglas G. Scott, M.D. 212 N. Park Ave. Sanford	2nd Monday 7:00 P. M.	13	100%	South Central District (E) Ft. Pierce Nov. 1, 1940
St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	19	100%	E-10-'41 A. M. Sample, M.D. Ft. Pierce
Broward	L. B. Ellison, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	38	100%	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
Palm Beach	James H. Pittman, M.D. Box 602 W. Palm Beach	C. Jennings Derrick, M.D. Box 574 W. Palm Beach	4th Monday 8:00 P. M.	64	100%	
Dade	Joseph S. Stewart, M.D. 525 duPont Bldg. Miami	Franz Slawart, M.D. 525 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	309	245	F-12-'41 Kenneth Phillips, M.D. Miami
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### CONTENTS

The Medical Man and the Florida Workmen's Compensation Act	E. Laurence Scott, M. D., Ocala	69
Impetigo Contagiosa Complicated by Hemorrhagic Nephritis	Henry E. Palmer, M. D., Tallahassee	73
Spontaneous Hemorrhage of the Ovary	J. S. Turberville, M. D., Century	75
Endocrinology of Menstruation; Review of Recent Literature	L. W. Dowlen, M. D., Miami	79
Emergency Procedures in General Practice	Reddin Britt, M. D., St. Augustine	84
Garlic: An Occupational Factor in the Etiology of Bronchial Asthma	Graham E. Henson, M. D., Jacksonville	86
Eugenic Sterilization in Florida	Lydia Allen DeVilbiss, M. D., Miami	87
Low Back Pain: Backalgia	Eugene L. Jewett, M. D., Orlando	89
Editorials: Physicians Needed for Army Service; District Meetings "A," "B," and "C"		96
Functions of A. M. A. Preparedness Committee		97
Medical Licenses Granted		98
Births, Marriages and Deaths		99
State News Items		99
Component County Societies		102
Abstract Department		104
Books Received		104
Advertisers' Notes		106
Woman's Auxiliary		108
State and Sectional Meetings		109
Component Societies by Districts		110

### NEXT SESSIONS

American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, Louisville, Ky., November 12-15, 1940



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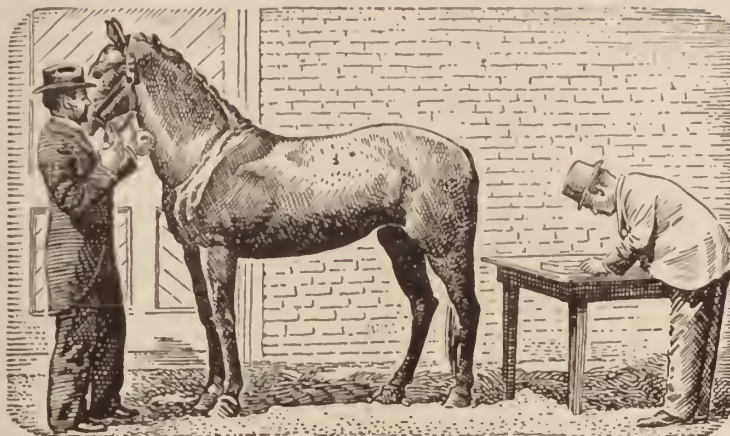
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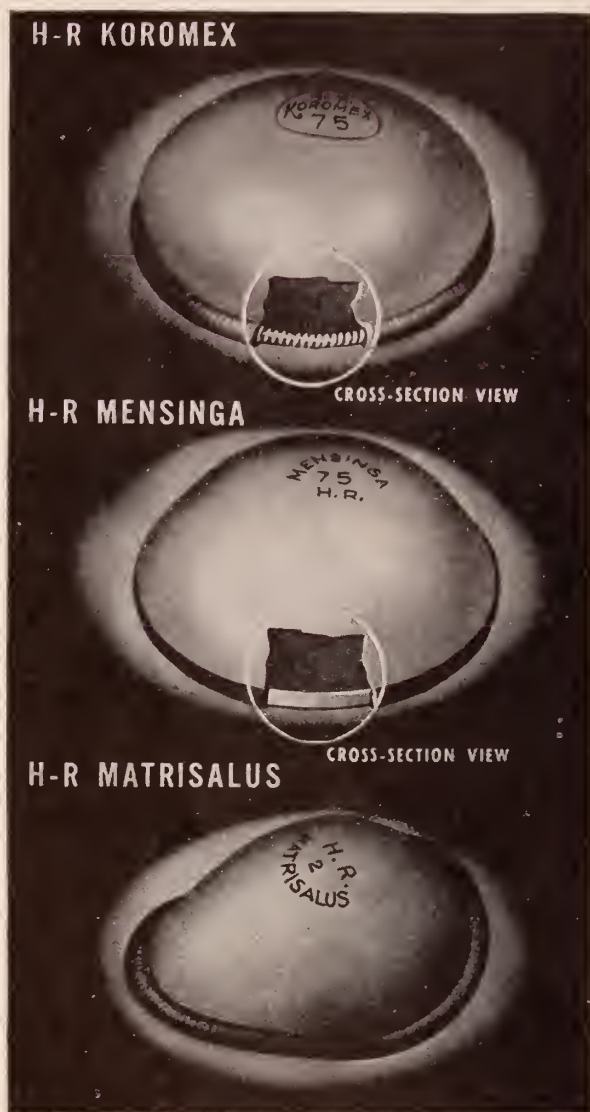
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## STUDIES IN THE AVITAMINOSES



This page is the eighth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the July 20 issue of The Journal of the American Medical Association.



*Coexisting riboflavin deficiency and pellagra, showing cheilitis and the characteristic glossitis.*

**T**HE manifestations of riboflavin deficiency in man have been recognized as such only recently. Frequently they occur in conjunction with pellagra, and consequently the characteristic lesions may not be apparent until the pellagra has been overcome.



*The cheilitis of ariboflavinosis. Note fissures at angles of mouth.*

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Cleckley, riboflavin deficiency produces a magenta color of the tongue. As stated by these investigators, when riboflavin and nicotinic acid deficiencies occur in the same individual, the fiery red tongue of pellagra may change under the influence of nicotinic acid to a magenta color which disappears only after riboflavin therapy.



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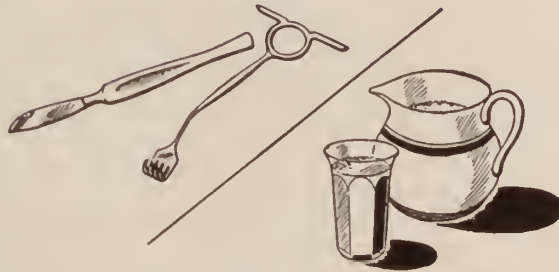
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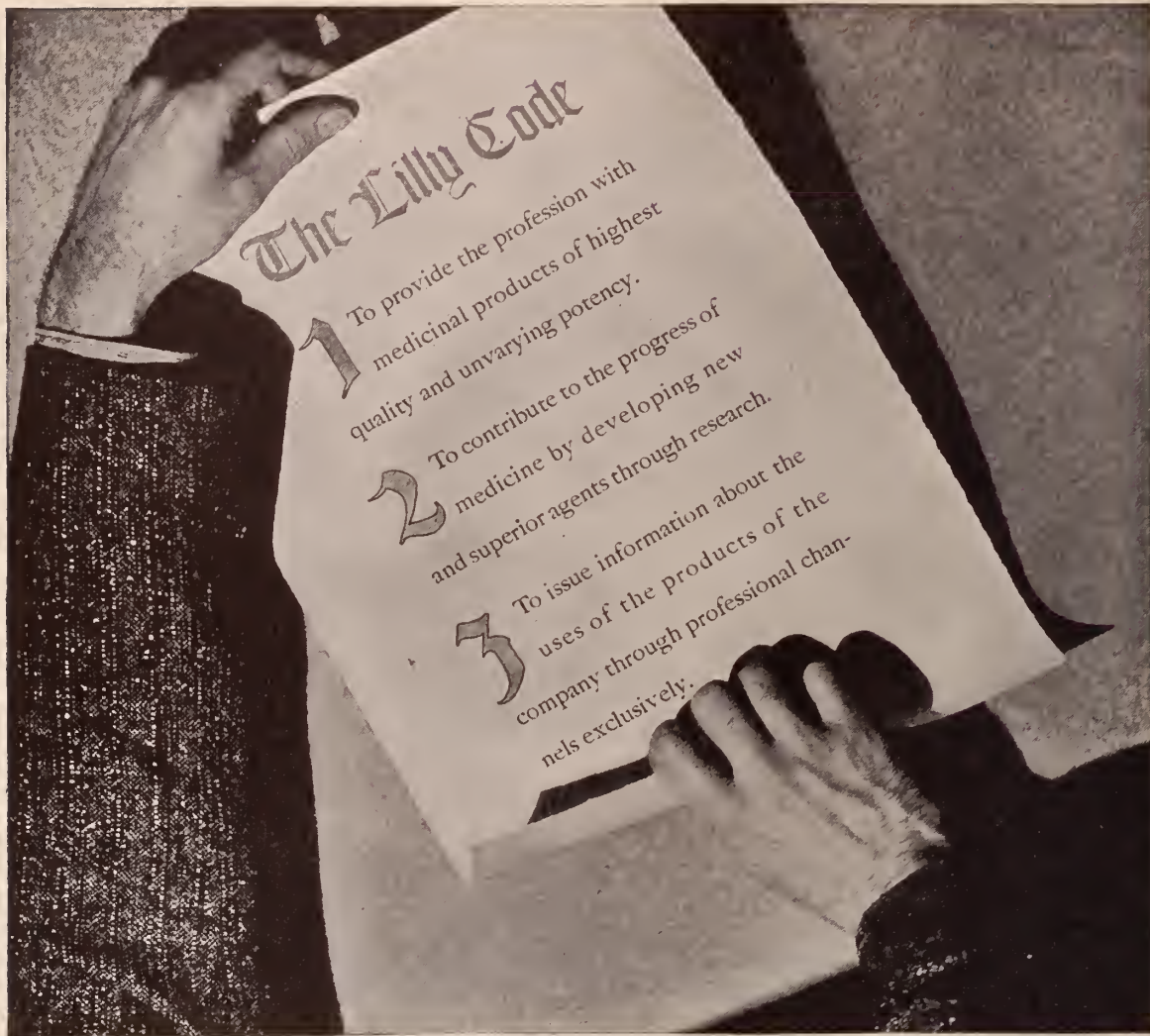
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## THE MEDICAL MAN AND THE FLORIDA WORKMEN'S COMPENSATION ACT (1935)

E. LAURENCE SCOTT, M. D.  
Ocala

Benefit to employees, in certain occupations and industry, is now an almost universal business custom. Despite the variations in the construction of the different States' laws, they all have one common aim, pecuniary reparation for injury sustained and time lost in occupation, when such injury and time lost are what we call "in line of duty."

We must admit a strong drift in favor of the employed, this drift being encouraged by the phrase, a popular and catchy one, having its origin in Scripture. I respectfully refer to "the Abundant Life."

Legally speaking, the Florida Workmen's Compensation Act, in which form it may be cited, was an Act of the Legislature of 1935, and amended by the Legislature in 1937. I shall speak of the Act in its present form.

The Act in most part is a composite of the proven workable compensation laws of several states, particularly those longer experienced in compensation, but all basically concerned with the same problems in employment. The intent of the Act, or law, is that in all private employments in which three or more persons are regularly employed in the same business or establishment, except domestic service in private homes, agricultural and horticultural farm labor, etc., all set out in the law, each employee shall be paid certain monetary benefits for time lost and for injury, if disabling, and shall receive proper medical and hospital care during the period necessary to recover in order that he may again earn a livelihood. In substance, then, it is a law to regulate physical maladjustments among employees, when an accident is the cause at fault, to preserve as nearly as possible the employee's regularity of work and to contribute to his dependents' economic security during the treatment and loss of time period.

The Florida Workmen's Compensation Act is administered by The Florida Industrial Commission, a Commission appointed by the Governor of the state (the terms of office being for varying periods), and consisting of a chairman and two other members. This Commission serves as a tribunal in matters before it, but it has no powers other than those set out in the Act. It is both judge and jury, all within the meaning of the Act but, unfortunately, as experience has shown us lately, by proper appeal to the Circuit Court, the Commission's decision can be set aside. It might be more plainly stated by saying that all Commission orders must be in accordance with law generally, in order that the constitutional rights of employees may be preserved.

This information is given to show why there may be a change in a doctor's report, his estimates or his conclusions of the medical phase of a patient he may handle under the Compensation law.

In the classification of injuries, we accept the language of the law when it says: "the term injury means personal injury or death by accident arising out of and in the course of employment, and such diseases or infection as naturally or unavoidably result from such injury." By using the term "accident," the law defines it in this manner: "Accident shall mean only an unexpected or unusual event, happening suddenly. A mental or nervous injury due to fright or excitement only or disability or death due to accidental acceleration or aggravation of a venereal disease or of a disease due to the habitual use of alcohol or narcotic drugs, shall be deemed not to be an injury arising out of employment \* \* \*." The relation of aggravation and acceleration as it bears on compensation is then given.

The definition of "accident," as given above, does not altogether follow our medical ideas of accidents; it is a difficult definition to understand fully. The opinions we hold regarding aggravation and acceleration sometimes do not fit into this definition but, as it is a part of the law, we accept it.

There is some general confusion on the question of Workmen's Compensation and Unemployment Compensation. Workmen's compensation provides benefits in connection with in-

dustrial accidents only, while Unemployment Compensation is a benefit program for those qualified as employees under the unemployment law, who are not injured but merely unemployed and entitled to receive certain monetary relief in accordance with the Unemployment Compensation law.

Medical men are not concerned with unemployment benefits other than where it involves medical certificates for illness as a cause for absence from duty. It is quite different, however, in the case of Workmen's Compensation for herein the medical man is the key to the situation, so to speak. Without a physician's or surgeon's report the law could not function, since benefits can be obtained only on the medical man's certificate in the form of a report of the type and extent of the injury. Disability awards can be made only on a medical man's opinion of the particular case, and if the disability is a prolonged one, it is usual to accept the opinion of the medical man handling the case.

The term "qualified physician or surgeon" is printed in the Act, but let us hope that in the near future the Legislature will amend those words to the effect that "qualified" will mean a medical man who has been qualified according to standards used by the State Board of Medical Examiners for Florida, or a like Board in another state when consultation by a non-resident medical man is required. We are normally expert witnesses when we handle the injured or sick, and we should maintain that standard for ourselves.

The word "coerce" appears in the law as follows: "It shall be unlawful for any employer or representative of any insurance company or insurer to coerce or attempt to coerce a sick or injured employee in the selection of a physician or surgeon or other attendance or remedial treatment, nursing or hospital care, or any other service that the sick or injured employee may require." It goes further and sets the fine for violation.

Coercion is a form of restraint, though we do not always coerce when we restrain. This inclusion of the word "coerce" in the law could possibly impair proper medical care and change the experience tables of the insurance companies or carriers in calculating their costs of medical care to the injured in employment. The final rates for compensation insurance reflect

medical costs, and the costs are finally passed to the buyer, or employer, who in every instance in compensation practice is the party giving you the opportunity of handling the case. A boomerang always comes back and we have to duck to avoid being hit some times.

In disputes that may arise between the employer and the employee as to which physician or surgeon is acceptable, the dispute must go to the Industrial Commission within twenty-four hours of the injury, unless agreeably settled between the two parties to the dispute. The Industrial Commission is given power to adjudge what is expedient and best, and its decision must be abided by. In my opinion, the word "coerce" in the Workmen's Compensation Act can become a two-edged sword.

Is it certain that the medical man has a clear idea of what constitutes a claim under the law? A safe rule, to avoid any pitfall, is to ascertain when you first handle the patient or give medical advice that the injured employee was in line of duty when the accident happened. Line of duty in business and industry is a broad term, and covers the assigned working hours of the employee and the assigned duties, rather than the duties usual to his occupation. The reason this is mentioned is probably obvious as the law affects all types of employment and labor. Be sure your patient was injured while on his employer's payroll, and that he was sane and sober when the accident happened. A sympathetic foreman might refer to you an injured employee and without proper knowledge of the law, your service fee be rejected if the employee was not on duty or not on the payroll when injured; or, his injury may even be excluded by the law, under certain circumstances.

The above is for your protection, and when a doubt arises in your mind, you are entitled to advice as to whether your services will be paid for in the expected manner.

We understand the terms "permanent total disability," "temporary total disability," "permanent partial disability," "temporary partial disability," and it is useless to more than mention them. However, the expressions, "total loss of use," and "partial loss of use," do produce confusion at times. For "disfigurement" in head and facial injury, if serious, an award can legally be set up by the Industrial Commission as reparation. The printed Act, as amended in 1937, contains guide tables for disability es-



timates and awards and should be a part of every physician's working library. The Florida Industrial Commission, whose address is Tallahassee, will furnish copies of the Act on request, and I advise that you secure a copy.

The obligation that the physician or surgeon owes the employer is the same obligation that exists if the employee came to the physician as a private patient. The fact that an insurance company or a setup for the protection of the employer is involved is no good reason for change in the physician's attitude to the employer, even though his dealings are principally with the employed. Indifference to the employer's welfare will, as I have said before, possibly increase his costs for the protection and directly call his attention to this point. The employer directs his injured employee to the physician just as he would consult his physician himself, and the medical men should keep this in mind.

I trust you understand that when compensation is referred to we mean that person or persons, that company or fund qualified under the law to assume the liability for employment injury and sickness. We find the terms, "carrier," and "self insurer" then to relate only to those employers who have qualified and in so doing are responsible for medical costs.

I would like to give you the outline found in *Principles and Practice of Physical Therapy*, in the chapter by Dr. Harry Mock of Chicago. It occurs to me that it covers well the obligation of the medical men to the injured employee. I quote him as follows:

1. Prevention, under subheading, "By analytic study of the disease or accident to prevent a similar occurrence to other individuals."

2. Treatment, under subheading, "The best possible treatment directed toward the earliest possible recovery with the greatest possible functional restoration."

3. Convalescent care, subheading, "The early removal of the patient from hospital influences."

4. Placement at suitable employment, subheading, "Light occupations in the industry until such time as the patient can return to his regular position."

5. "Training, for new vocation when disability unfits the patient for the usual occupation."

6. "Medical follow-up to see that rehabilitation is completed and that it so remains."

In attempting to define The Workmen's Compensation Act it was stated that the law was directed to employers only, broadly speaking, with exceptions noted. Therefore the law has no specific language to the medical man but rather invites him to participate in the benefits accruing under the Act, in his professional ca-

capacity. The language used is plain and to the point. It gives the physician or surgeon latitude to carry out his principles of practice. It sets up provision for hospital and special care. It includes autopsy. It covers certain hernias and tabulates disability. Contingencies and unusual happenings are provided for in the implications of the Act, and the Industrial Commission is empowered to interpret the law as broadly as is necessary to make it function as the Legislature intended it should. In addition, the law demands that the medical costs be paid, when charges are fair and reasonable and faithful service has been rendered.

The principle of Workmen's Compensation is not new, and the changes we find are not changes in principle but in application to meet economic conditions affecting the employee. Granting that it is an imposed penalty on business, the benefits going to the employed, such laws are almost universal at the present time, and have been subjected to close scrutiny and legal tests, sufficient to have them accepted as a modern plan in business life.

Florida's Workmen's Compensation Act bears the date of 1935, whereas many states have used the program satisfactorily for many years. Employers' experiences with the law improve as time goes on, though it is the general feeling with the compensation insurance companies that it is not usually a profitable business for them. The Insurance Commissioner of Florida demands that all casualty companies doing business in the state must share a part in covering the compensation risks falling under the purview of the law, and has a plan of allocation of the risks, through the Industrial Commission, in case the employer is unable to find a voluntary taker for his insurance.

On the other hand, as the employer's experience with compensation grows, many of his first objections are overcome. The old rule of the "law of averages," often crops up, and the employer is comforted, when a death claim arises in his establishment as a result of accident, in realizing that he has paid a premium to an insurance company to be relieved of all detail thereof.

Compensation is now being applied for by many employers in the exempted groups, which in itself is an answer in favor of the law. In all matters of insurance we seek to prevent loss through misfortune, and the trend of the times,



irrespective of our individual views, is a compelling force in the different employments. It is an economically sound plan in American living, with the changes that do come about by legislative amendments as the situations require.

Again, in the application of the law the medical man and the hospital is relieved of treating the injured employee as a charity patient. Financial responsibility is automatically set up under the law, and the medical man can treat the injured employee as if he were a private patient, always however, with the thought in mind that his individual cooperation will do much towards creating good will between the employer, the employed and the law.

Some may look on compensation questions as a form of socialized medicine. I think they will find themselves in error if they do so, since the underlying principle in compensation insurance is that the employer pays a certain premium for protection against financial loss resulting from accidents to his employees. It is a sound business, whereas socialized medicine implies that all who *can* pay *must* pay for all those who *can not* or *will not* pay.

The writer has been fortunate enough to have seen both sides of Workmen's Compensation laws in operation—in Alabama as an active orthopedic surgeon for thirty years, and for the past four years in Florida in the insurance business. A close contact has been maintained with the medical profession during the four years in the insurance business, by hospital staff appointment and through membership in local and state medical societies. It is sometimes quite difficult to put aside the purely medical aspect in an interpretation of the law, and sometimes it has been highly enlightening to know what business really thinks of doctors in general. I have felt like a small boy eavesdropping.

I might say that business has a wholesome respect for medicine and its practitioners, and I know of no other group of men whose opinions are accepted on face value. At times I have been almost overcome with the feeling of a medical missionary in a heathen land, but I trust I have given you some ideas in regard to the Florida Workmen's Compensation Act that will enable you to pattern your views in such manner that what you do will improve the law where improvement is found to be needed.

I will not bore you with a recitation of personal experiences, as you might have suspected from the paper's outline. May I conclude by saying that I think the Florida Workmen's Compensation Act is a just and workably fair law, and though it mentions "benefits" to "employees," hidden between its lines, and in doctors' collection accounts, "benefits" accrue to the medical man as well as to those directly named in the law.

## DISCUSSION

*Dr. T. H. Bates, Lake City:*

Doctor Scott very kindly asked me to say something about the matter he has discussed with you. It has been my privilege, as a member of the advisory council of the Industrial Commission of the State of Florida, to sit in with that commission at times and hear some of the discussions.

I think that the law Doctor Scott has discussed with you is one of the very best workmen's compensation laws that exists in any of the states. The biggest trouble we have found comes from a misunderstanding of the physicians and the general public as to the workmen's compensation law and unemployment compensation law. These are two distinct and separate laws that the Industrial Commission has to administer.

There are some things about the Workmen's Compensation law that perhaps can be improved upon. I have in mind a particular reference to industrial diseases or diseases that may be of industrial origin. As the law stands a man must have an accident or an accident must play a part in the production of his disability before he really becomes a beneficiary. Another thing that perhaps will have to be changed or should be changed is the bringing under the law of some of the present exempted employments.

These are things that it will take time to develop, and will probably come before these men who have the making of the law. Certainly it will provide for physicians and hospitals a protection that we have not had heretofore. It provides for the payment of just medical bills, and I am sure that many men are being paid for services rendered now, who formerly had to pocket a loss.

I think Doctor Scott has brought us a very interesting discussion of a law that is to protect the services of many men in the State of Florida.

*Question from the floor:*

I would like to ask Doctor Scott to interpret this law as it applies to piece-workers doing work such as logging.

*Dr. Sarah P. White, Tallahassee:*

I should like to ask the doctor what, if any, is the precedent established in a case like this: A patient who has a permanent *partial* disability is being carried by the insurance company upon the basis of a weekly compensation that fits his case. What is the future of that patient? He obviously cannot ever be insured by any other insurance company. He can now earn something to add to his partial compensation which must support himself, his wife and baby. But what about the future of that man if he becomes ill with some intercurrent disease? What about his family? Does the Commission increase compensation when there is increasing need for such,—when he, as he obviously must do at an earlier age than other men, slips into permanent *total* disability?

*Dr. E. Laurence Scott, Ocala (Concluding):*

If I understood the question just asked, it was about piece work. Irrespective of what type of piece work it is, the insurance company checks the monthly payroll and charges the employer so much for every dime expended on the payroll. And the man working at that time and receiving that dime comes under the benefits of that Act, if he was even doing piece work. The amount of salary on the payroll is charged for. However, all employers do not cover the particular type of work that you mentioned, logging. That can be avoided as in every law there is some way to circumvent it. There are cases existing where the individuals are allowed to do their own logging under contracts which fall under exempted parts of the Act. Then if the man is injured it is his own loss.

As to the second question: This act definitely says that so many weeks of payment are to be made for certain types of injury. It does not mean that the man is going to be a ward of the insurance company from the time of the accident on. The law sets out a certain definite number of weeks that that injury or disability exists and weekly payments are made. If the injury is permanent, such as loss of an arm, then he will be paid off in a lump sum and his case definitely closed. It does not run on for an indefinite time or the rest of his life. It is limited. Cases that call for a settlement are definitely stated, and provided for in the Act.

Printed copies of the Act will be left at the desk and I would like for everyone interested to have a copy. It is very plain when you read it.

## IMPETIGO CONTAGIOSA COMPLICATED BY HEMORRHAGIC NEPHRITIS

### CASE REPORT

HENRY E. PALMER, M. D.  
Tallahassee

My purpose in presenting this paper is to impress upon the medical profession the grave and dangerous sequellae that may follow an attack of impetigo contagiosa. Heretofore we have paid very little attention to this condition; in fact it has been considered so harmless as to require very little thought or attention. I am safe in stating that at least 75 per cent of all cases are not seen by the profession, but are treated with salves or lotions by the family or druggist.

The following interesting article by Seymour H. Silvers, M. D., Brooklyn, New York, appeared in the New York State Journal, June 1, 1939. I quote as follows:

The first report linking impetigo with nephritis was that of Salvioli, who in 1879 reported from postmortem observation a case of glomerular nephritis with generalized impetiginous eruption in which he saw a causal relationship. However, the relationship was not very clear, for he had not followed the clinical course of the case, nor was

there any statement in his report on the treatment that the patient had received. Sirugues, in 1881, reported cases in which he had observed acute nephritis as a complication of impetigo of the head. Boyer was able to find 7 cases of nephritis in which impetigo was the etiologic factor. Muller saw a case of nephritis following an impetiginous eruption after vaccination. Fontanee stressed the fact that hematuria may be seen not infrequently in cases of impetigo in children. Brocq, in his textbook on skin diseases, also writes of the possible kidney complication in impetigo. Guiard reported 2 cases of nephritis following impetigo. He observed that the nephritis cleared up as soon as the impetigo was cured. He also observed that nephritis may be present in a very mild form and, therefore, overlooked. The prognosis in both his acute and mild cases was usually good. The first report on this subject found in American literature was by Phillips, in 1910. He reported 2 cases of nephritis following impetigo and emphasized that it was the duty of the physician to examine the urine in all cases of impetigo in children, and that in nephritis of obscure origin, impetigo should be considered as a possible etiologic factor. In his first case, nephritic symptoms appeared eight days after the eruption first appeared on the chin. Farah reported a number of cases of nephritis following impetigo, some mild and some severe. Sieben saw a patient, aged 18, who developed acute nephritis after impetigo. Schaefer stresses the favorable prognosis in acute nephritis following impetigo. Sutton reported 5 cases of acute nephritis all preceded by impetigo.

It is not always possible to determine in each case the etiology of acute glomerular nephritis. Students of kidney diseases are agreed, however, that in the great majority of cases the disease is a manifestation of an infection in some part of the body. Longcope, et al., were able to demonstrate infection foci in 84 per cent of their series of cases of acute nephritis. Southby and Stanton investigated acute nephritis in 103 children and found that 29 had tonsillar or peritonsillar infection preceding the onset of acute nephritis. In 27 cases no etiologic factor was discovered; 17 cases had impetigo; 15 were preceded by measles; 11 were preceded by pneumonia, and the remainder due to a variety of causes. Hill, in a similar study among 51 children, found that in 15 cases no etiologic factor could be established, 14 were preceded by tonsillitis, 4 by scarlet fever, and 4 had impetigo. Lichtwitz stressed the importance of skin infections as foci in acute nephritis. He collected 97 cases of acute nephritis in five years. Among these, 19 cases were due to pyodermias of the skin. Kaumheimer found that among his series of 223 cases of nephritis, 21 were due to impetigo. He stressed the fact that skin infections play an important role in causing nephritis. He observed that older children were more vulnerable than infants. The prognosis in his cases was invariably good. Lindenstrauss, too, observed that very young children were not as easily affected by impetigo nephritis as older children. He observed that impetigo nephritis is similar in its course to the acute nephritis following scarlet fever.

Since Tillbury Fox first described impetigo contagiosa as a distinct clinical entity, many observers have studied the causative organism. It is generally agreed that both the streptococcus and staphylococcus can be isolated from the lesion, but that in the majority of cases the streptococcus is the causative organism. Farley and Knowles believe that streptococci can be isolated in all cases of impetigo. Hiemke found that only 9.2 per cent of his series of cases yielded staphylococci; the rest showed streptococci on culture. Smith and Burky studied 9 cases in children. In 6 cases they isolated a hemolytic streptococcus, and in 3 they found the staphylococci.

That impetigo contagiosa causes a generalized body reaction was shown by Towle and Swartz. They studied the blood counts in 25 cases of uncomplicated impetigo. In 24 cases investigated, they found an increase in the white blood corpuscles of over 10,000 per cu. mm. In 10 of these cases, the count was over 15,000.



My son, Dr. T. M. Palmer, was visiting me when the first two patients, whose cases are here reported, were brought in and he made the diagnosis. Prior to this, I had not connected hemorrhagic nephritis with impetigo contagiosa although I am sure now that I had treated such cases without realizing the connection. It was rather singular that I should see five cases within five months, the first two being brother and sister, the second two brothers. All four were Negroes who had had no treatment until swelling had begun and blood showed in the urine. The white child was untreated until blood appeared in the urine.

#### CASE REPORTS

CASE 1. S. L. B., a colored male, aged 4, was brought to my office on July 30, suffering from eruptions on the body, legs, and arms, which began on June 15. There was no history of any contagious disease. Old scabs and scars were scattered over the entire body. There was general edema of the face, hands, abdomen, and legs; a slight cough, pain in the head and moist rales throughout the lungs. Temperature was 101 F., respiration 22, systolic blood pressure 120, diastolic 90. The urine, which was acid and bloody, showed albumin 2 plus and specific gravity 1010. I saw this patient frequently until the albumin cleared up and he was apparently well.

CASE 2. I. M. B., a colored female, aged 7, sister of the patient in Case 1, was seen on July 30, the same day her brother was brought in. Her condition appeared alarming as there was general edema, an enlarged liver, ascites, moist rales over both lungs, and her face was so swollen that she could not open her eyes. Her rectal temperature was 101 F., respiration 40, systolic blood pressure 130, diastolic 90, urine scant and bloody. As she was in a comatose condition, I sent her to the hospital, where she died on August 1, failing to respond to treatment. Her body, like that of her brother, was covered with scabs and old sores. Home remedies had been used in both of these cases.

CASE 3. A. C., a colored male, aged 4, had slight edema with anascara of the legs and feet. There was no history of any contagious disease. The body, arms and legs were covered with impetigo scabs and scars. There was no elevation of temperature; the systolic blood pressure was 110, diastolic 80. The urine was bloody, with albumin 2 plus and specific gravity 1012. The patient had had no previous treatment. He made a gradual recovery, the albumin and blood disappearing from the urine.

CASE 4. E. C., aged 7, was a brother of the patient in Case 3. In this case, also, there was no history of any infectious disease. The patient's face was edematous; hands, legs and feet swollen; and the body, arms and legs covered with old impetigo scabs. There was no elevation in temperature; systolic blood pressure was 120, diastolic 90; urine bloody, with some albumin. On treatment, the albumin and blood disappeared from the urine and he made a gradual recovery.

CASE 5. R. C., a white male, aged 3½ years, had had pertussis for a month and impetigo for two weeks when he was brought to my office for treatment. He did not vomit and there was no elevation in temperature but rales were heard over the lungs. Sores covered the buttocks and were scattered less thickly over the body, legs, arms and face. He was very anemic, with a rapid pulse. The systolic blood pressure was 125, diastolic 90. The urine, which had become very dark three days before, was bloody and showed albumin present. He responded to treatment, showing steady improvement. The urine became clear in 10 days.

#### DISCUSSION

*Dr. Thomas M. Palmer, Jacksonville:*

This has been a most interesting and instructive paper by Doctor Palmer, and, I am certain that all of us have enjoyed it.

I feel that one is justified in concluding (and I mention this because in the cases reported the sores were well along in age) that Doctor Palmer's patients were suffering from impetigo contagiosa and not Brockhart's impetigo.

Impetigo contagiosa is a contagious skin disease due to inoculation with streptococci, usually *Str. pyogenes* (hemolyticus or viridans) or *Str. anginosus* (found in the throats of scarlet fever patients). These are organisms which cause suppurative lesions or severe systemic infections.

Brockhart's impetigo is really a superficial *Staphylococcus folliculitis* and is pustular from the outset. According to Sutton, whom the essayist quoted, so-called trench nephritis in soldiers was often due to impetigo complicating pediculosis.

Now that we are familiar with the fact that impetigo contagiosa may cause acute hemorrhagic nephritis, I feel certain that many of us will encounter similar cases in the future. Although the majority of patients will show sores at the particular time of examination, one may well obtain the story of sores which have only recently healed. We should inquire concerning this in our history taking.

With regard to nephritis, we know that there often is a precise interval between the time of the original infection and the onset of nephritis. The same may be true in the case of impetigo contagiosa, although we cannot prove this at present.

It is undoubtedly true that acute hemorrhagic nephritis due to impetigo contagiosa presents no differences from that due to acute tonsillitis. Last summer I saw a 14 year old boy with this complication, i. e., acute hemorrhagic nephritis with impetigo. He ran a typical course with hypertension, blood pressure 188/128, nonprotein nitrogen 60 mg., and developed cerebral manifestations in the form of convulsions. He made a dramatic recovery, although when seen two weeks ago, his urine showed a 1 plus albumin.

As a rule one would suppose that the neglected cases of impetigo contagiosa more often show acute hemorrhagic nephritis. On the other hand the thought occurred to Doctor Palmer and myself that ammoniated mercury ointment, as you well know very commonly used in treating impetigo, might be the etiological factor in some cases. It is possible that the patient literally covered with sores might absorb sufficient mercury to cause nephritis or be hypersensitive to mercury. We do not believe that we have seen such instances.

*Dr. Gilbert S. Osincup, Orlando:*

Doctor Palmer is indeed to be commended for having presented this important subject to us and the nephritic complication of this very prevalent disease.

All of you who have been practicing in Florida know how prevalent impetigo is. You also know, as he says, that at least 50 per cent of these patients are unseen and untreated by physicians. The percentage is probably much higher than that.

He made one statement that I take exception to. He said that we paid no particular attention to impetigo. That is not true in our practice. I assure you the mothers would not permit it; they would run you crazy. But, as he stated, a great many of them are greatly overtreated before the doctor sees them.

I agree with the point that Dr. Thomas Palmer brought out, that the question of ammoniated mercury or mercurial ointments applied before we see them should be considered relative to etiology. One peculiarity of this nephritis to me is the severity of that hemorrhage. Most of these patients are very, very sick children. There is



almost complete suppression and almost pure blood at some stages of it. A vast majority do clear up in a comparatively short time. But most of the parents think that the children are going to die. We are also afraid of it. They do clear up, fortunately.

I have seen cases following impetigo, and I have also seen them following athlete's foot, and other well marked skin conditions. No other etiological factor could be found and it is to be assumed that these were the organisms which caused the acute nephritis.

Again, I want to thank Doctor Palmer for having presented this paper. I hope every one will benefit from it who has paid attention to this particular subject.

*Question from the floor:*

I would like to ask Doctor Palmer about his method of treatment.

*Dr. Henry E. Palmer (Concluding):*

I use the same old treatment, ammoniated mercury.

I wish to thank the gentlemen for discussing my paper. Permit me to quote a proverb: "Out of the mouths of babes and sucklings come words of wisdom."

## SPONTANEOUS HEMORRHAGE OF THE OVARY

J. S. TURBERVILLE, M. D.  
Century .

This is a rare condition or, it should be said, a condition rarely recognized clinically, and then usually at the operating table through a mistaken diagnosis. I will here give a short discussion of the structure of the ovary and something of the known physiology.

According to Davis,<sup>1</sup> the microscopic structure of the ovary shows a reddish spongy stroma well supplied with blood vessels, containing numerous folliculi "oophori vesiculosi (Graafi) enclosed in the serous covering derived from the peritoneum. The serous coat differs from the ordinary peritoneal lining by having a single layer of columnar cells, the germinal epithelium of Waldeyer."<sup>2</sup> The medullary portion of the ovary is very vascular, but less so in the cortical portion. The reverse is true for the ovarian follicles which contain the human ova. The graafian follicles vary in size from microscopic to as large as one-fourth inch in diameter. They ripen, increase in diameter and approach the surface upon which they form little blister-like prominences.

When these cysts mature they rupture and the ovum is discharged. The cavity fills with the bloody fluid and becomes successively the corpus hemorrhagicum, the corpus luteum and the corpus fibrosum. Unless pregnancy takes place it is called the false corpus luteum and

disappears after two or three months. Under the influence of pregnancy it grows for some time, remains during gestation, and disappears two or three months after parturition.

It can be seen that, if for any reason the mature follicles do not rupture, cysts form. It is possible also for the follicles to rupture into recent corpora lutea which are very vascular by reason of the granulation tissue present in the healing follicle. This may explain the corpus luteum hemorrhages. The same process that causes rupture of the follicle at the time of maturation may occasionally continue afterwards and be the cause of the spontaneous hemorrhages that we are now studying. The function of the ovary is that of generating and discharging ova. It evidently has some kind of influence over growth, and a stabilizing influence over the general nervous system.

I do not intend to discuss rupture of ovarian retention cysts, cyst adenomata of any variety, dermoids, cysts with twisted pedicles, parovarian cysts, large corpus luteum cysts, endometriosis of the ovary, hemorrhage due to the exanthemata or metallic poisoning, or rupture of the ovary due to torsion of the pedicle. I am confining my remarks to healthy appearing organs in which rather normally appearing graafian follicles and normally appearing corpora lutea break open and bleed, sometimes almost to the point of exsanguination.

In Penrose's *Diseases of Women*,<sup>2</sup> this condition is mentioned under the heading of "Apoplexy of the Ovary." In Reed's *Text Book of Gynecology*,<sup>3</sup> it is spoken of as hematoma of the ovary which sometimes ruptures. It is mentioned in the available textbooks under various classifications. Among these textbooks are those of Pryor,<sup>4</sup> Gilliam,<sup>5</sup> and Walscheid.<sup>6</sup> Some of the later books discuss the subject at great length and make attempts at listing symptoms and certain diagnostic tests that might lead to a correct idea of the condition. Among these are Hardy<sup>7</sup> who states:

Notwithstanding the fact that ovarian intraperitoneal hemorrhage is a relatively common occurrence, and has doubtless been found by most surgeons of ordinary experience, a complete survey of the literature on this subject up to a few years ago reveals the fact that 77 cases had been reported. Of these cases, not one preoperative diagnosis had been made.

Read before the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society, January 18, 1940.

He classifies them into (1) primary, referring to an exaggeration of the physiologic process of maturation of the ovum and its expulsion and consequent hemorrhage into the follicular cavity, and (2) secondary, referring to a variety of conditions, rupture of the corpus luteum, rupture into retention cysts, into new growths, bleeding into endometrial cysts, etc. He works out a differential diagnostic scheme. Among his diagnostic points are: tenderness on manipulation of the cervix in ectopic pregnancies in conjunction with a history of delayed or missed menstrual periods and signs of hemorrhage; epigastric or umbilical pain and abdominal rigidity in the beginning of appendicitis. He notes that shoulder pain is common to both hemorrhage of the ovary and ruptured ectopic pregnancy. His is a splendid discussion of the subject.

Among recent writers are Boggon and Wrigley\* who, under the caption of "Ovarian Blood Cysts" report 13 cases with the following summary. Five were married, 8 single; the average age was 27.7 years. All were diagnosed as appendicitis, all were operated upon and all recovered. Temperatures varied from 99 to 101 F., pulse from 64 to 130. There were five cases of tenderness and rigidity in the right iliac fossa and eight with these symptoms in the lower abdomen. Rectal and vaginal examinations did not give any information of value. No mention was made of the relation of the hemorrhages to the menstrual cycle.

Paul C. Morton<sup>9</sup> reviews all reported cases up to that time with the following tabulated summary:

Total cases reported to 1931.....	93
Right .....	25
Left .....	19
Not given.....	49
Type of cyst:	
Corpus Luteum.....	26
Follicular .....	5
Not given .....	62
Preoperative Diagnosis:	
Appendicitis .....	37
Ectopic Pregnancy.....	17
Cystic Ovary .....	3
Salpingitis .....	3
Exploratory Laparotomy.....	33

He states that the menstrual histories are very incomplete. He mentions one author who has complete menstrual histories of 8 patients in whom there was an average of 16 7/10

days between menstruation and occurrence of hemorrhage. In his own case the hemorrhage occurred 18 days after menstruation. He seems to think that if an investigation were made it would be found that most hemorrhages come from the corpora lutea.

Sackett<sup>10</sup> reports on 26 cases but his analysis does not give much information. His group is rather heterogeneous. The relation to the last menstruation is not pointed out. He does say that this condition is not apt to happen in the first half of the menstrual cycle. There were no deaths in his series.

Cornil, Mosinger and Picaud<sup>11</sup> made a histological study of 250 ovaries. They regarded as hemorrhage all intra-ovarian hematomas in normal or pathologic ovaries. Fifteen cases were discussed. In one case there was bleeding from the wall of the ruptured follicle and in another a vein of considerable size was ruptured. They are inclined more to the idea that the condition is one of diapedesis through hormonal influence than an actual rupture of vessels. No mention is made as to the relation of the time of the hemorrhage to the menstrual cycle.

Maffey<sup>12</sup> reports a case of ovarian hemorrhage which occurred following a missed period under the following circumstances. After missing a month the flow came on and lasted seven days. Then there was an interval of three days with no flow, after which the flow recurred, accompanied by pain and tenderness of the lower abdomen. Curettage did not show pregnancy, neither did the ovary which was removed. Operation revealed a clot over a nest of cysts which was beginning to organize. The hemorrhage was thought to come from the cysts. Perhaps the rent in the cysts had healed.

dePol<sup>13</sup> reports a case in which the hemorrhage occurred on the tenth postmenstrual day in a single woman. It was diagnosed by the family doctor as appendicitis. This diagnosis was accepted and she was operated upon. The rectal and vaginal examinations did not give any definite information. dePol reviewed eight other cases incorrectly diagnosed. He thinks that the diagnosis will always be between appendicitis and ruptured ectopic pregnancy.

Convert<sup>14</sup> reports two cases both of which



were diagnosed as ruptured ectopic pregnancy. He does not state whether these patients were married or not. The origin of the hemorrhage was follicular but the relation to the menstrual cycle was not mentioned.

Jones<sup>13</sup> reports three cases, all young women in their twenties. The hemorrhages occurred, respectively, five, sixteen and twenty-one days after menstruation. He mentions the uncertainty and indefiniteness of the rectal and vaginal examinations, also the large amount of blood from such insignificant lacerations in the ovary. He notes the sudden excruciating pain in the lower abdomen which lasts a short while, followed by a lull of several hours, then a return of pain, tenderness, and rigidity, worse in the affected side. He does not state the preoperative diagnosis.

Stabile<sup>14</sup> reports a case in which the hemorrhage occurred on the fourteenth day after menstruation. The last period was of short duration. He calls attention to the fact that in the majority of cases which he has seen, the hemorrhages occurred after a period of amenorrhea or one of altered menstruation. He suggests that it is perhaps produced by the same mechanism as the follicular hemorrhage in the Friedman test.

Manizade<sup>15</sup> states that diagnosis is difficult in small hemorrhages, especially so in hemorrhages from the right ovary. His main diagnostic point is to remember that such hemorrhages do happen in female patients, especially in atypical cases of acute abdominal conditions. He reviews 167 cases of corpus luteum and follicular hemorrhage confirmed pathologically. These occurred at or after ovulation according to the modern notion as to the time of occurrence of ovulation.

I wish to report four cases that have come under my observation.

CASE 1. This was a Jewish woman in her twenties who had been married but a short time. She was brought to a hospital in a nearby county and I was called in to operate under the diagnosis of appendicitis. The case had been worked up on my arrival. However, I did make a cursory examination and expressed doubt as to the diagnosis of appendicitis. I agreed, however, that it was a surgical emergency. Operation was done immediately. The appendix appeared to be normal and, on completion of its removal, blood was noticed. The meso-appendix and pursestring suture were inspected and found to be dry. Then the pelvic organs were examined and the right ovary showed active bleeding from a ruptured graafian follicle. This was evidently the cause of the pain. The ovary was removed. I did not obtain any information regarding the relation of this episode to the

menstrual cycle. Her convalescence was uneventful. This was the first case of spontaneous rupture of the ovary which I ever saw.

CASE 2. This patient, who had been ill for forty-eight hours, was examined by my son, Dr. J. I. Turberville. Her trouble began with pain in the lower right abdomen and profuse vomiting. She stated that her whole abdomen was "sore and felt swollen." There was nothing of importance in the family or personal history, except that she would occasionally miss her menstrual periods as much as four or five months at a time. However, the relation of this sickness to the menstrual cycle was not investigated. She gave a history of occasional digestive disturbance. Examination revealed only a tender, rigid abdomen with maximum tenderness  $1\frac{1}{2}$  inches below and 1 inch to the right of the navel in an area about the size of a silver dollar. Vaginal examination could not be made on account of an intact hymen. Rectal examination revealed the uterus in good position but there was distinct tenderness to the right of the uterus. Her urine was normal and her blood showed 85 per cent polymorphonuclears. A diagnosis of appendicitis was made. The operation through a right rectus incision was done by me. The abdomen was filled with liquid blood and a large clot was spread out over the right ovary and tube. The ovary was 8 by 6 by 4 cm. in size. It was removed by ligation, together with some fimbrial cysts. The pathologist reported that a corpus luteum cyst had ruptured and caused interstitial hemorrhage. This hemorrhage, in turn, had ruptured. The bleeding was active at the time of operation. There was some shock at the conclusion of the operation which was soon over. Her age was 18 years. She had an uninterrupted convalescence and has since married and has three children.

CASE 3. This patient, aged 22, was the daughter of a physician. Her family and personal histories were unimportant. Her present illness began 72 hours before I saw her, with pain about the navel. The acute pain was soon relieved but was followed by general tenderness over the whole abdomen, worse in the lower right side. Sixty-three and one-half hours after onset she had a chill and a temperature of  $102\frac{1}{2}$  F. When first seen, she had pain and tenderness in her lower right abdomen and epigastrium. Examination revealed no abnormality outside of the abdomen except a slight systolic murmur at the apex of the heart. The abdomen showed some tenderness in the epigastrium and also tenderness in the right side of the abdomen. The maximum tenderness was midway between the anterior superior spine of the right ilium and the navel. Pressure on the left side of the abdomen caused pain on the right side. Livingston's sign was not present and there was no psaos or rotator spasm of the thigh. Palpation of the abdomen, with the patient in left lateral position, showed exaggeration of the tenderness on the right side. Rectal examination revealed nothing abnormal. Laboratory examination of urine was normal. Blood examination showed the white count to be 12,650, red count 3,960,000, hemoglobin 75 per cent, polys. 74, clotting time 3 minutes. The following note was made: "The patient looks sicker than the findings would indicate."

A diagnosis of acute appendicitis, with perhaps rupture, was made. However, I said to her father that the parts of the picture did not fit exactly and that he should not be surprised to find a rupture of the ovary. This was on her twenty-seventh postmenstrual day. Operation revealed what appeared to be a normal appendix, but abnormally situated. The pathologist labeled it as lymphoid hyperplasia of the appendix. The abdomen showed liquid blood among the intestines, and a clot in the pelvis. The left ovary was ruptured and actively bleeding. The pathologist reported congestion and hyperluteinization of the ovary. She made an uninterrupted convalescence, has since married and has one child.

CASE 4. This patient was a white married woman, aged 32, who had never been pregnant. Her family and personal histories were unimportant except that she had begun menstruation at the age of eleven. Menstruations were of



a two to four week interval, the average being three weeks and the usual duration from five to six days. The last period was twenty-one days before onset of her trouble. She was a well developed and healthy young woman. When first seen she had been ill for eleven hours. Her illness began with a cramp-like pain just above the symphysis pubis, which did not shift. Three hours after onset she developed pain in both supraclavicular regions. The pain cut her breath and she was unable to take a deep breath. She had not missed a menstrual period nor had she been delayed. She said that she never had anything like this before. The temperature was 97 2/5 F., pulse 98, blood pressure 120/84. There was considerable tenderness in the lower abdomen, especially over the symphysis pubis. The vagina was normal; the cervix showed a nabothian cyst. The corpus uteri was distinctly felt and was in the anterior position. It was small and of firm consistency. The adnexa were not felt. There was an indefinite boggy resistance in the cul-de-sac of Douglas. All other organs and systems were normal. The urine was normal. Eleven hours after onset, her white blood count was 21,000, polys. 91 per cent, coagulation time 1 minute 45 seconds. A red blood count was not made. Four hours later the following was found: red blood count 4,310,000; white blood count 18,000; hemoglobin 70 per cent; polys. 88 per cent. My son, Dr. J. K. Turberville, made this investigation and decided it was a case of internal hemorrhage, probably due to rupture of a follicle or corpus luteum of the ovary. I concurred in this diagnosis.

After observation for three hours, 17 hours after onset of pain, she was operated upon by Dr. J. K. Turberville. His operative findings were as follows: The abdomen was filled with free and clotted blood. The right ovary was about twice as large as normal and had a ruptured graafian follicle which was still bleeding. There was a small cyst that occupied almost half of the ovary. The cyst and bleeding follicle were removed by sharp dissection and the defect was closed by small chromic catgut suture, pulled tight enough to prevent bleeding. The convalescence was uninterrupted.

Doctor Turberville based his probable diagnosis of internal hemorrhage due to the rupture of a follicle or corpus luteum of ovary mainly on the following considerations: Her symptoms did not fit into the more common abdominal emergencies. There was absence of any indication of previous pelvic disease. The abdomen was tender but not particularly rigid. The pain began and remained in the pelvic region. It extended upward as indicated by the shoulder pain. This shoulder pain indicated irritation of the diaphragm. The physical findings in the pelvis and abdomen seemed to indicate the presence of something of greater consistency than watery fluid. The increase in the severity of the symptoms was too rapid to be inflammatory in nature. Ruptured ovarian cystadenomata do not produce much pain or rigidity. In most cases the patient is up and about when the doctor is consulted. The presence of a pelvic growth is generally known or suspected by the patient. Finally, a recent discussion of spontaneous hemorrhage of the ovary had focused Doctor Turberville's attention on this condition.

There are 743 cases of this condition reported in the literature. No doubt some of these are duplicates or triplicates as no attempt has been made to correct such an error. There are certain outstanding features common to cases with extensive hemorrhage. It is important to note a rapid increase in the severity of the symptoms. The prostration of the patient is more rapid than it is in other pelvic lesions. There is usually no indication of pregnancy or previous pelvic inflammatory

disease. The great majority of the patients have been healthy women in the midst of their active genital lives.

Many authors mention other forms of hemorrhage from the ovary in addition to these follicular and corpus luteum hemorrhages. Among them are ruptured ovarian cysts, malignancies, infectious diseases, metallic poisons, certain systemic states, and anemias of various kinds. However, I have seen no such cases. Therefore, it is to be concluded that hemorrhages from these other causes must be negligible and hardly need to be considered in making the diagnosis. It makes one wonder if these causes of hemorrhage are not listed simply to round out academic discussions. There are a few cases reported with histories of amenorrhea or altered menstruation. They are so few that it is hard to conceive of any causal relationship. The time factor in relation to the menstrual cycle has not been established. Most of the cases reported show a lack of careful history taking and of complete physical examination. It is hoped, therefore, that those who encounter these cases in the future will make postoperative studies in the light of the findings of this very interesting condition.

One noteworthy point is that the large amount of hemorrhage occurring in these cases is entirely out of proportion to the insignificant structural damage. We are forced to think that some local temporary influence—hormonal, secretory, or whatever you wish to call it—is responsible. This idea is substantiated by the fact that many follicular cysts are punctured in the course of abdominal operations yet none, according to my knowledge, cause any hemorrhage that requires surgical treatment.

Perhaps very few of these cases will ever be diagnosed preoperatively. However, it is well to think of this condition in the presence of atypical abdominal emergencies. This is especially so if the pain and tenderness remain about the pelvis, in the middle, the right or the left side, gradually spreading upward. The presence of shoulder and thoracic pain and painful breathing are particularly important. The diagnosis must often be made by exclusion, especially in differentiating hemorrhages from ectopic pregnancies. It must be re-

membered that a few of these cases have been accompanied by uterine bleeding. If one remembers the possibility of spontaneous hemorrhage of the ovary when examining obscure cases of lower abdominal emergencies in women, perhaps an occasional correct diagnosis can be made.

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#### HAY FEVER UNRELIEVED BY HISTAMINASE

Histaminase failed to give relief to any of his fifteen patients with ragweed hay fever, Edmund L. Keeney, M. D., Baltimore, reports in *The Journal of the American Medical Association* for June 22.

"Since histaminase is advocated as a drug effective in controlling disorders of an allergic nature, it seemed that its benefits could be most accurately determined by its use in the treatment of patients with seasonal hay fever," he says.

"Histaminase was administered by mouth to fifteen patients with typical ragweed hay fever during the height of the 1939 ragweed season. It failed to give relief to any of the patients. Any fluctuation in symptoms that occurred could be accounted for by a concomitant fluctuation in the pollen concentration of the atmosphere."

## ENDOCRINOLOGY OF MENSTRUATION

### REVIEW OF RECENT LITERATURE

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The vastness of this subject makes a thorough review in a short paper impossible. However, the high points of the physiology of the organs involved will be discussed, together with the relationship of all hormones to normal menstruation.

The discovery of the circulation by William Harvey, in 1619, was the most important which has ever been made in medicine, and the source of most of the subsequent improvements.

In the early eighteenth century, Swedenborg, according to Baar, wrote that the liver and the pancreas functioned chemically and, in conjunction with the spleen, brought about the purifying of the blood.

In 1775 Theopile de Bordeau, of Montpelier claimed that every organ created special bodies for the function of the whole organism. He described the symptoms in castration, puberty and the menopause and pointed out the importance of secretory anomalies as a basis of some pathological conditions.

In 1849 A. A. Berthold of Gottingen proved experimentally the influence of the internal secretion upon the blood. He transplanted the testicles of young cockerels, and observed that although castrated they remain normal cocks insofar as vocal power, sexual instinct, desire of combat, comb growth etc., were concerned. He definitely and accurately established the existence of the secretion of the testicles. Brown-Sequard of Paris, in 1869, taught that all glands whether possessed with excretory ducts or not contributed valuable substances to the blood without which pathologic conditions arose. In 1889 he made a report before the Paris Societe de Biologie, at the age of 72 years, of injecting himself with testicular juice and experiencing an increase of physical vigor, cerebral function, appetite and intestinal activity. Since then it has been found that the ovaries as well as the testicles produce hormones that originate in parts of the glands other than those producing external excretions. Hanes, in 1911, found that in the male they originate in the interstitial cells of Leydig, and in the female probably in the corpora lutea.



Storling in 1902 originated the name "hormone" from the Greek, "I arouse, or set in motion."

In 1859 Schiff was first to attempt transplantation experiments in dogs for thyroid deficiency. In 1880 Sanstrom described the parathyroids.

In 1901 Froehlich described his syndrome "dystrophia adiposogenitalis." In 1907 Paulesco reported a death after total extirpation of the gland, while partial extirpation was followed only by very characteristic effects upon growth and development. In 1909 Cushing and Homans revealed the gland's relationship to carbohydrate metabolism. These researches led to the production of pituitrin.

In 1911 Bartel and Herman are reported to have found enlarged ovaries in the so-called status lymphaticus. In 1889 Rogowitsch observed hypertrophy of the hypophysis after extirpation of the thyroid. In the same year Marie pointed out the association between acromegaly and anatomical changes in the hypophysis.

#### OVARY

The structure of the ovary is for the most part composed of a connective tissue, called the stroma ovarii, richly supplied by blood vessels and nerves. The stroma contains very numerous spindle-shaped connective tissue fibres and some elastic tissue. The surface of the ovary is covered by a layer of epithelium, which is composed of columnar cubical cells, and is continuous with the epithelium of the peritoneum forming the mesovarium. The ovarian epithelium is a persistent portion of the germinal epithelium of the embryo which covers the genital ridges, and from which the ova and other cells of the graafian follicles are derived. The position in which it becomes continuous with the peritoneum can usually be distinguished as a fine white line near the hilum of the ovary. Shining through the epithelium of the fresh ovary (except in old age) are usually to be seen a variable number of small vesicles, the folliculi oophori vesiculosi (O. T. Graafian follicles) in which the ovula or ova, are contained.

The number of follicles visible, and also the size which each follicle reaches before it ruptures and sheds its contents, are by no means constant. When a follicle ruptures and discharges the ovum its walls at first collapse, but

later the cavity becomes filled with extravasated blood and cellular tissue of a yellowish color. The resulting structure, called a corpus luteum, slowly degenerates unless impregnation has taken place, in which case it develops and becomes larger during pregnancy. As it atrophies the cells of the corpus luteum disappear, and the structure, losing its yellow color, receives the name of corpus albicans. After a time the corpus albicans completely disappears. Owing to the periodic rupture of the graafian follicles, the surface of the ovary, which is at first smooth and even, becomes in old age dimpled and puckered.

The graafian follicles produce varying amounts of follicle hormone (estrin, estrone, folliculin, female sex hormone, theelin, etc.) This substance is demonstrable in both the blood and urine by various tests and may be found in many other tissues and fluids (placenta, amniotic fluid, urine of pregnancy, etc.) Also substances of the estrogenic type are found in many forms of plants and even minerals so that the principle can't be considered a specific hormone of the follicle. Zondek and Aschheim in 1927 found urine of pregnant women contained large quantities of estrogenic hormone. Disy, using such urine, first isolated an estrogenic hormone in crystalline form and named it Theelin. It represents a group of substances rather than the estrogenic hormone. Some of the sterol groups are known to be estrogenic also. The clinical nature of estrogenic substance was observed by Butenandt, who found it to be an oxyketone of the formula  $C_{27}H_{44}O_2$ , closely related to the sterols.

After the follicle ruptures the corpus luteum carries on further estrin production so we have this principle throughout the cycle. However, the amount in the blood drops with retrogression of the corpus luteum which begins shortly before the onset of the succeeding period. According to Moricard, estrin is secreted from the theca interna cells which are in intimate relationship with the circulatory system whereas the stratum granulosum is avascular.

This estrogenic substance is responsible for increasing growth and hyperemia of the endometrium from the end to the beginning of the menstrual cycle and regulates the normal rhythmic activity of the musculature. In the lower animals they have physiologic effects upon the accessory genitalia but do not stimu-



late the ovary or the anterior pituitary gland. Large doses suppress the ovary and thus produce bleeding from hyperplastic endometrium but this is not true menstruation. This action is temporary. A large amount of estrin followed by progesterone produces pre-menstrual type of endometrium in the human castrate. This type of bleeding may be considered true menstruation. Estrin which is produced by the follicle causes proliferation and vascularization of the mucosa and has a stimulative effect upon uterine musculature inducing rhythmic contractions.

Corpus luteum produces, besides estrin, a second and more characteristic hormone, progesterin, and it seems not unlikely that progesterin is to be looked upon as only a modified estrin, just as the lutein cell is only a modified granulosa cell. This isn't produced by any other tissue. The corpus luteum hormone has not been closely identified but we may safely assume that it belongs in the same class of sterols as estrin. It has been synthetically produced from pregnandiol which is found in the urine of pregnant women and also from stigmasterol, a wax obtained from the soy bean, but it remains rather expensive.

Progesterin brings about secretory and other changes with its contractility which characterize the endometrium with the approach of the next menstrual flow. However, it has no stimulative effect upon the ovary. Progesterin, which is specific for corpus luteum, produces pregravid change in the endometrium and sensitizes it for nidation if fertilization occurs. However, unlike estrin, it has an inhibitory effect upon the uterine musculature inducing a quiescent state. Foiling conception, desquamation of mucosa and bleeding occur.

Kaufman has proved that no other hormones could possibly take part in the proliferation and secretion phases which appear limited to progesterin. This hormone is undoubtedly formed in the corpus luteum itself, as it can be obtained only from this organ.

#### HYPOPHYSIS

The hypophysis is composed of two lobes, a large anterior lobe and a smaller posterior lobe which are closely applied the one to the other. The infundibulum which extends downwards from the tuber cinereum, is attached to the posterior lobe.

There is a third pair of sex principles ob-

tainable from the urine of pregnant women, even in early states. These substances represent the composite called prolactin consisting of separate principles which on animal ovaries produces either follicle ripening "A" or luteinizing "B" effects analogous to those produced by the pituitary sex hormones themselves. They are not identical with pituitary sex hormones themselves but are called anterior pituitary like gonadotropic principles of pregnancy urine. These same principles are also derived from the placenta.

The classic research of Herbert Evans, Zondek, and Aschheim shows that the hormone of the anterior pituitary is essential for ovarian functioning—called gonadotropic hormone of anterior lobe. Unlike the ovarian hormones it contains nitrogen, soluble in  $H_2O$ , similar to the thyrotropic hormones and insulin. It seems to be closely connected chemically to the degeneration products of the proteins. Without doubt the gonadotropic hormones of the anterior lobe are at least one of the factors under the influence of which the cyclic process in the ovary is governed. It stimulates ripening of the follicle and ova, ovulation, and then formation of the corpus luteum.

Schockaert and Siebke ground hypophysis of the adult female and found in the anterior lobe up to 4,000 mouse units of Hormone A and up to 1,500 mouse units of Hormone B. Their findings indicated also that glandular products have a higher gonadotropic hormone content than pregnancy urine.

As determined by Fluhmann the ovary-stimulating hormones may be divided into two categories. In the first group can be considered the pituitary hormone which includes the extracts prepared from anterior lobe material as well as the substance obtained from the blood or urine of women after castration or after menopause. The second group, the "chorionic hormone", is made up of material obtained from the blood or urine of women during gestation or association with hydatiform mole or chorio-epithelioma. The follicle stimulator, or prolactin "A" is responsible for the maturation of ovarian follicles and thereby the production of estrin. Likewise, the luteinizing principles, or prolactin "B", is responsible for the conversion of granulosa and even thecal cells into lutein cells and thereby the production of progesterin. Evidence is increasing that these

two pituitary sex principles are really separate hormones.

The anterior pituitary gland concerns not only sex function but controls and exerts a direct influence upon the thyroid, parathyroid, adrenals, pancreas, and other members of the endocrine chain. The pituitary gland and hypothalamus (a region now generally believed to harbor the regulating center of the vegetative nervous system), are closely related anatomically and functionally. Philip discovered that the anterior lobe of the pituitary is almost free of gonadotropic hormones during gravidity just at the time when the greatest amount of follicle and corpus luteum hormone is required. This is explained by studying the reaction of the estrogenic hormone on the pituitary. It has been observed that after castration overproduction of gonadotropic hormones is found. This overproduction can be stopped by introduction of estrogenic hormones. This is not a direct reaction but occurs indirectly through cooperation with the central nervous system. Let us presume a center in the hypothalamic region of the mid-brain which, upon diminution of the ovarian hormone, stimulates the pituitary through the nerves and likewise upon an excessive increase in estrogenic hormone discontinues this stimulation. Because the anterior lobe of pituitary acts as a regulator of the activity of the ovarian hormones, it is clear that the high demand of production of estrogenic hormone during gravidity continues to be met in the ovary. Increase of estrogenic hormone stops through the sex centre the production and delivery of the gonadotropic hormone from the anterior lobe. Thus the pituitary in pregnancy contains almost no gonadotropic hormones. We know from investigations that it is the chorion in which during gravidity the gonadotropic hormone is formed. This makes possible the Aschheim-Zondek test for pregnancy.

Thus it appears the sexual centre in the mid-brain rather than the pituitary really regulates the ovary. In analyzing the hormonal regulation of ovarian function, Zondek presented evidence that the formation and maturation of the ovum must be controlled by the anterior pituitary secretion as are the growth of the follicle and the corpus luteum. That the ovum cannot bring about luteinization was also determined experimentally. In a rabbit he ob-

served also when prolan "B" was injected after removal of the ova a follicle developed into a corpus luteum. The gonadotropic hormone of the anterior pituitary produces the maturation of the follicle and the ovum, the rupture of the follicle and the development of the corpus luteum. Control of the sex glands by the central nervous system as suggested by Hohlweg, Junkmann and Schoeller are considered possible although the experiments to confirm this hypothesis are very few. The question whether the hormonotropic action of the anterior pituitary requires a central nervous regulation for its effect on the endocrine glands is still open.

#### UTERUS

In hysterectomized rabbits which were observed for a year, Siegmung found the uterus unnecessary for development of the follicle but necessary for the development of the corpus luteum. Dworzek and Podleschka believed that their studies on autotransplantation of the uterus and ovary into the eyes of rabbits indicated that the uterus develops a hormone. Cheval, utilizing dogs and transplanting pieces of uterine and ovarian tissue into the abdominal muscles, came to the same conclusion. Mayer, on the basis of dog experiment, suggested that in all cases in which bilateral oophorectomy is performed on women under fifty years of age, a subcutaneous transplantation of the ovarian tissue should be done, and that when removal of the uterus is necessary a piece of the uterine fundus with endometrium should be transplanted. He concluded that there is an internal hormonal relationship between the uterus and ovary, that is a "uterine hormone."

Present states of sex hormone therapy is rendered even more uncertain by lack of dosage and time of administration. The closest idea of physiologic dosage for the human is given by Kaufmann who found 1,000,000 international units of estrogenic substances followed by 35 rabbit units of progesterone is necessary to duplicate the endometrial cycle in the human castrate. The newer sex hormone preparations have proved disappointing. Thus far thyroid extract remains the most important form of organotherapy in the treatment of functional menstrual and reproductive disorders if coupled with proper sex hormone therapy.



Menstruation is brought about by a joint action of uterus, ovary, hypophysis and mid-brain. Removal of the ovaries and the anterior lobe of the hypophysis causes atrophy of the uterus and of the other secondary female sexual organs. The two hormones must be applied successively in accord with the temporal sequence of the proliferation and secretion phases. The actual cause of menstrual bleeding is not definitely known. Four factors may be considered, namely, myometrium, endometrium, ovary and anterior pituitary gland.

Myometrium might appear to be of importance in controlling menstrual bleeding because of the role uterine muscles play in checking postpartum hemorrhage.

Development and maintenance of the endometrium are dependent upon the estrogenic hormone. It deserves careful consideration not only because it is the site of the bleeding but also because it reflects the activity of the ovaries. Examination by Klingler-Burch suction curette has proved very instructive along these lines. Six hundred specimens show there are basically only four types of endometrium, namely, proliferative, transitional, secretory and menstrual.

Hartman, Firor and Geiling demonstrated that there can be no bleeding without the presence of the pituitary gland. They also showed that bleeding which follows injection of estrin does not occur in hypophysectomized monkeys, but injection of anterior pituitary extracts does bring about bleeding in a proliferative musoca.

Wilson and Kurzrok offer the following hypothesis of bleeding mechanism as a single explanation of all functional or hormonal forms of uterine bleeding: Bleeding, per se, is due to a special hormone elaborated by the anterior lobe of the hypophysis. The bleeding hormone is separate and distinct from the follicle stimulating and luteinizing hormones. It is not gonadotropic but acts directly on the endometrium and its production is stimulated by the estrogenic hormone as has been proved while its activity is inhibited but not destroyed by progesterin. The actual onset of bleeding occurs when a certain concentration of bleeding hormone has been reached provided its action is not inhibited by corpus luteum hormones. Bleeding, or menstrual flow, stops when the bleeding hormone is exhausted.

Following menstruation an ovarian follicle begins to mature and to produce estrogenic hormone. The latter stimulates the formation of the bleeding hormone in a gradually increasing amount. A certain minimal quantity of bleeding hormone is necessary before bleeding can occur. At about the middle of the cycle ovulation takes place and a corpus luteum forms. The secretion of progesterin now inhibits the activity of the bleeding hormone although the latter continues to be secreted. Because the corpus luteum begins to degenerate, the bleeding hormone is released. The bleeding continues until the supply of bleeding hormone is exhausted. With the onset of a new cycle, the process is repeated.

The failure of luteinization deprives the bleeding mechanism of its normal inhibitory influence. The bleeding will occur earlier than usual if all other factors remain the same, but may be delayed if the estrogenic hormone production is subnormal or if the pituitary does not respond with the production of the bleeding hormone.

It was long considered that the menstrual flow must be attributed to some toxic substance which produces a hemorrhage by direct action on the endometrium. Frankle believed that such a factor was elaborated by the corpus luteum and recently Hartman suggested that the bleeding is brought about by the action of an anterior hypophyseal hormone.

Allen's "estrin deprivation" theory seeks to explain the occurrence of uterine hemorrhage as due to removal of the ovarian influence following its stimulation of endometrial growth. Hartman's work with monkeys confirmed the findings of Murphy to a large extent, in that the normal cycle was difficult to disturb to any degree with estrin or an anterior pituitary product.

#### SUMMARY

1. The entire field is contradictory and there is no possible standardization at this time.
2. There has been demonstrated three pairs of sex principles in pregnant urine: (A) estrogenic substance; (B) progesterone; and (C) anterior pituitary gonadotropic-like substances.
3. There are theories which may be considered the actual cause of menstruation: (A) bleeding hormone of anterior pituitary which is stimulated by estrogenic substances



and inhibited by progesterone; (B) a toxic substance which acts directly on endometrium; (C) Allen's estrin deprivation theory; and (D) hormone of the uterus itself.

#### CONCLUSION

The consensus in regards to normal menstruation is as follows:

There is thought to be a sex center located in the mid-brain which really regulates the anterior pituitary gland. This gland in turn stimulates the ovary through two separate and distinct hormones. One of these hormones stimulates growth of the follicle, ova, and ovulation. The second hormone stimulates growth of the corpus luteum. Finally the ovary stimulates the uterus, first by the hormone derived from the follicles and then by the corpus luteum hormone.

Thus by normal sequence of physiological actions of the aforesaid glands and organs, the normal menstrual cycle is completed.

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### EMERGENCY PROCEDURES IN GENERAL PRACTICE

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Experience has convinced me that the emergency demands in the general practice of medicine become more exacting each year. This observation may not be as true of emergencies arising from natural illnesses as of those resulting from accidental causes. Irrespective of their origin, emergencies require attention, and it is the general practitioner, in most instances, who is called and not the specialist or the man practicing in a limited field. We must meet the task and render proper emergency aid, no matter what the nature of the condition, be it minor or major, medical or surgical.

Regardless of the hour, day or night, it behooves us to respond when called if, in our opinion, our services are needed. In many instances when we think we are not needed, we are needed most. If we are unable to respond, we should ascertain briefly what information we can and offer some suggestion as to what should be done until we can go, some other

physician can go or the patient can be taken to a hospital.

As physicians serving our community we must learn to stand alone and know how to meet and handle the emergency. If we are to survive in the community, it is imperative that we master as many of the emergency procedures as we can in the fields of medicine and surgery. What procedures may properly and with safety be attempted by the general practitioner, in the home, the office or the hospital, is a debatable question that each practitioner must settle conscientiously for himself. Realizing that what seems to be minor may often become major, he must apply his knowledge accordingly with intelligence.

Those of us who have hospital facilities available are at an advantage over those who do not. In consequence, we often forget a good many procedures that can be carried out in the home, in the office or at the site of the emergency, that will aid in diagnosis and thereby expedite relief for the patient, thus incidentally proving economical for him and saving time for the physician. Particularly in the field of medicine, and to a lesser degree in obstetrics and pediatrics, are these diagnostic measures of value. If we are to practice our art with precision and at the same time defend ourselves against the ravages of disease and injury, we must be equipped with the necessary apparatus to do certain laboratory procedures in addition to carrying out the therapeutic procedures indicated. We should be able to take simple blood counts, blood sugars, blood smears, throat smears and cultures, and do urinalyses and spinal punctures. Also, we must not forget the catheter and the stomach tube if we are to meet such emergencies as may arise in cases of diphtheria, meningitis, poisoning, acute retention, malaria, acute pyelitis, convulsions and acute appendicitis.

Well do I remember an obstetrical case in which I was called to pinch-hit for another physician, who was absent from the community. The patient lived about forty-five miles from a hospital and thirty or more miles from the nearest doctor.

CASE 1. A white woman, aged 41 years, was in her third pregnancy, the others having occurred at the ages of twenty-one and thirty-one. When examined, she was in active labor, preeclamptic, waterlogged, nauseated and vomiting, with the stomach full of fresh blackberry cobbler. The membranes had ruptured, and the fetal

head was in deep transverse arrest; the tones of the fetal heart were very rapid and of poor quality. The patient's blood pressure was above 160, and the urine, examined just before the call was made, was found to be loaded with albumin and casts.

With all supplies sterile, after the forceps had been boiled for fifteen minutes, preparations for delivery were made. The patient was given ether by her stepdaughter, who had had about one year of training as a nurse. Before the forceps could be applied, the patient's stomach became dilated. Fortunately, the stomach tube and the duodenal tube were in my extra bag, but by the time this condition could be attended to the baby was thought to be dead. Delivery was accomplished by forceps and the child was born dead.

The dilatation of the stomach was relieved by leaving the duodenal tube inserted for about thirty-six hours, and through it liquid nourishment was given. Between twelve and twenty-four hours after the removal of the tube, the stomach again became dilated, and before I could reach her, the patient died.

In this case there was no telephone in the home, and both the patient and her family were unwilling even to make an attempt to get her to a hospital.

What emergency in medicine can be more exacting than a case of coronary thrombosis in which the patient is a friend whom you have been attending over a period of years and who has outlived by two or three years the prognosis made by a competent internist?

CASE 2. A white woman, aged 57 years, was brought to the hospital on June 19, 1938, acutely ill with coronary disease and in a state of shock. For more than five years she had been the victim of progressive coronal vascular disease with pronounced peripheral sclerosis and had had hypertrophy of the heart with hypertension, but without clinical evidence of valvular disease. The blood pressure had varied from 170/86 in the early period of treatment to 225/130 at the time of admission when the thrombosis occurred. On examination, the patient was cyanotic and was suffering extreme pain in the precordial region; tachycardia, irregular pulse and all the signs of cardiac and peripheral circulatory interference including early evidence of pulmonary edema were present. There was a moderate reduction in blood pressure to 160/110.

The patient was given 1/2 grain of morphine, 1/100 grain of atropine and amyl nitrite by inhalation. An ice cap was applied to the cardiac region, and sedation with morphine was continued for pain with doses of 1/4 grain from every thirty minutes to three hours apart as indicated. Phenobarbital in doses of 1 1/2 grains was given when needed for rest as the morphine was administered for pain only. Oxygen was given by nasal catheter.

On July 10, after three weeks of hospitalization, the patient returned to her home and remained in bed most of the time for the next two months. Gradually she was allowed to be up and about the house and to go for an occasional ride. She was given theobromine and phenobarbital to control pressure and nervousness, and occasionally sodium nitrite to relieve pain, supplemented by inhalations of amyl nitrite.

Seven months after returning from the hospital, she awakened from sleep one day, coughed and immediately became semiconscious. When I arrived, she was showing signs of impending cardiac failure, including pallor, a cold, clammy skin, moderate dilation of the pupils of the eyes, and a frothy sanguineous fluid from the lungs filling the mouth. Immediately she was given 1/4 grain of morphine and 1/75 grain of atropine, also three cat units of digitalis intravenously followed by coramine. By this time an emergency tank of oxygen with nasal

catheter had been obtained, and oxygen was given at the rate of about forty bubbles a minute through water until the acute stage of the attack subsided. Thereafter she was kept digitalized, and for five months she remained more or less of an invalid, seldom going farther than from her room to her porch. On May 11, 1939, a similar attack occurred, and a repetition of these procedures again brought her through.

Six weeks after this last attack and one year from the time of the first attack, the patient retired feeling badly but in no pain. I was called during the night and on arrival within thirty minutes after the onset of the acute stage of the attack, I found her unconscious, pulseless and only gasping for breath. All efforts at resuscitation, including the administration of oxygen, failed.

In the field of surgery the general practitioner plays a most important part. Here again there are many things he can do. In the majority of cases he should be able to diagnose the acute surgical condition, and when he cannot, it is often possible for him to render some relief until a consultation can be arranged. In cases of massive hemorrhage of gastric or duodenal origin he should insist on hospitalization, quiet the patient and treat the shock by intravenous methods including transfusions.

Likewise, in accidents, when seeing major or minor injuries, he should first of all scrutinize the field, determine the general condition of the patient and estimate the damages. In simple scalp, hand, trunk and other wounds of the body he may then do the procedures that will prevent minor injuries from becoming major problems, thus preventing simple fractures from becoming complicated ones. In other words, he should render adequate emergency treatment and not hesitate to call for assistance in the early stages of therapy if in his opinion the condition is questionable or assistance advisable.

Also, the general practitioner should be able and prepared to cleanse wounds properly and to suture them, not forgetting the fact that "cleanliness is godliness and to be godly, we must be clean." So, before suturing, let us see that all hair has been shaved from about the part, that the skin and not the wound has been washed with good soap and water and that it has been cleansed further with alcohol or other antiseptic of choice. We may then proceed to cleanse the wound by irrigation and the application of sterile warm saline, remove all devitalized tissues, suture carefully all structures anatomically and dress the wound. Last but not least, when in doubt, we should



administer prophylactic treatment for tetanus and gas gangrene.

If called to treat a snake bite, as some of us occasionally are, act quickly. Lay the wound open and apply suction by some means constantly, with tourniquet applied. Do not hesitate to give morphine in large doses, and give the serum, repeating the dose in four hours or earlier if the patient lives. Give supportive treatment intravenously, such as glucose and saline. Remember that some lives may be saved. Out of three or four cases I have seen, I recall only one patient who lived.

In the smaller communities and rural districts, injuries resulting from automobile accidents frequently exact all our skill and ingenuity. For instance, I was recently called to treat a case of simple fracture of the tibia and fibula and a compound fracture of the femur on the left side in a patient suffering from shock and loss of blood. This condition was complicated by a fractured pelvis with involvement of the hip joint, also on the left side, which was neither complained of nor recognized until some time after fixation of the fractured femur had been completed and other emergency treatment given.

#### CONCLUSION

Emergency procedures in general practice tax the ingenuity and skill of the physician. They are sufficiently difficult with the most modern conveniences of the up-to-date hospital, but in a community without these facilities, the physician's responsibility is greatly increased. I have outlined only a few of the conditions that have come under my observation.

*Box 565.*

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## GARLIC: AN OCCUPATIONAL FACTOR IN THE ETIOLOGY OF BRONCHIAL ASTHMA

CASE REPORT

GRAHAM E. HENSON, M. D.  
Jacksonville

A case of more than usual interest is that of A. A., an adult white male who presented himself with the following history.

A former resident of Minnesota, 22 years of age, married, he had suffered with a seasonal pollinosis for four years. In 1937 he had been given cutaneous tests for all of the tree, grass and weed pollens indigenous to the section of the country in which he was living and had been found very definitely positive to the entire ragweed group. He was given the common ragweed pollen extract subcutaneously in the customary increasing doses reaching a maximum dosage of 6,000 units, acquiring a tolerance that rendered him free of symptoms for the balance of that season and the greater part of the 1938 season.

Late in September of 1938 he developed a return of his "hay fever" symptoms but in a less aggravated form than in previous attacks. Just a month later he developed a bronchial asthma of a mild nature with attacks occurring every evening, increasing in both duration and intensity so that when he first came under my observation, on November 11, he was losing four or five hours of sleep each night. A complete allergic study was undertaken, giving all the food protein, epidermal and miscellaneous protein, the tree, grass and weed pollen extracts and the bacterins. Both the cutaneous and intradermal methods were employed. His tolerance to the ragweed group had become lost as evidenced by positive reactions to the entire group—lineal cutaneous tests of 1 cm., producing urticarial wheals from 3 to 4 cm., at their greatest diameters. He gave negative reactions to all the epidermal, miscellaneous and bacterial protein extracts and to all the food proteins with the exception of garlic. A lineal cutaneous test of this vegetable protein extract measuring 1 cm., produced an urticarial wheal 4 cm., at its greatest diameter with numerous pseudopodia measuring from 1 to 2 centimeters.

His occupation was that of a foreman in the sausage department of a large wholesale meat packing plant. In the making of sausage a powdered garlic was being used and the air permeated with the odor of garlic at all times. At my suggestion he substituted the garlic kernel for the powdered form. On the evening of the second day following this substitution he went to bed at an early hour, slept all night and has been entirely free of any symptoms of asthma since that time, now a period of over seventeen months.

The nightly occurrence of asthmatic attacks increasing in intensity, the very positive reaction he gave to garlic, together with the remarkably prompt disappearance of all asthmatic symptoms as soon as the offending powder was removed, leave no doubt that that part of his occupation involving the use of powdered garlic was the sole etiological factor of his asthma.

*438 St. James Building.*



## EUGENIC STERILIZATION IN FLORIDA

LYDIA ALLEN DEVILBISS, M. D.  
Miami

Congratulations on the article "Eugenic Sterilization" by Dr. A. T. Cobb in the November Journal. I wish however to correct a slight error in this otherwise excellent article—the statement that sterilization may not be legal in Florida.

It is true that there is no eugenic sterilization law in Florida but neither is sterilization forbidden. Sterilization therefore in this state is not illegal. Several hundred such operations on both male and female have been performed in the local hospitals on recommendation of a member of the staff of this Clinic.

Sterilization is recommended when in the opinion of the physician such operation would benefit the health or welfare of the patient. It is done by voluntary consent and handled the same way as any other surgical procedure except that a release is taken in all cases. For sterilization of the wife, the release is signed by the patient and her husband; for a minor, the release is signed by the parents or guardian. Appended is a copy of the release prepared by the attorneys for the Mothers' Health Clinic and which has successfully withstood at least one test, as follows:

A vasectomy was performed on a male diagnosed as psychopathic with homicidal tendencies. He and his feeble-minded wife had already produced nine children to be supported by the community. Several years after the vasectomy he was sent to Raiford on a charge of incest. On his release he consulted an attorney as to a possible suit against the Clinic. When the attorney read the release which the patient had signed in the presence of witnesses, he informed the patient that he had absolutely no recourse.

A principle of medical jurisprudence which is little known or understood is that when a patient submits himself to an operation with a specific request for a specific procedure the surgeon is obligated to perform it if possible. He can, of course, refuse to operate, but if he does operate upon a patient who has requested sterilization, particularly in writing, he is obligated to do it if surgically possible.

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Director, Mothers' Health Clinic.

Some years ago the Clinic sent a number of women to the charity hospitals with unilateral pyosalpinx with a verbal request for sterilization. Some of the surgeons removed only one tube. As a result many of these women had to return to the hospital in a year or so to have the second tube removed. This risk of a second operation may be justifiable if the woman is intelligent, desires another child and fully understands that she possibly may have to undergo a second operation. The surgeons were under the impression that a requested sterilization was not legal. When the principle of jurisprudence was explained and the patients were sent with properly signed releases, there was no further difficulty in securing sterilization in the hospitals of this area for charity patients who would benefit by the operation.

In the sterilization of the female the method of choice has been the excision of a V shaped wedge from the cornua. In this procedure fine ligatures are used. At least one case of pregnancy is known to have followed this operation, which was possibly due to a coarse suture which permitted the ovum to enter.

The method of sterilization in the female by coagulation of the cornua, instead of the Dickinson cautery, was developed by the staff of the Mothers' Clinic and reported in the *Journal of Obstetrics and Gynecology*. Recently a method has been developed in New York City to perform this coagulation under the fluoroscope. It is useful in cases which may not be surgically operable but it should not be tried in the presence of venereal disease. An old gonococcic infection may be re-established and in the presence of syphilis an unpleasant hemorrhage may result. The method of sterilization by sperm immunization is effective only for an indefinite period and laboratory precipitin tests to establish immunity are not always satisfactory.

Vasectomy is a milder procedure which can be done in about twenty minutes under local anesthesia in any surgical office. The staff of the Mothers' Clinic is now performing this operation with a single median incision. The patient is required to present a specimen of semen, which is not permitted to get chilled, within 12 to 14 weeks following the operation. Sperm will persist for an indefinite period and

no patient is released until the sperm report is negative. Vasectomy is followed by a general feeling of well being and often by a decided improvement in health. It also exerts a stabilizing effect on blood pressure. High blood pressure is reduced quickly, rising again slowly but not to the previous high reading.

The Clinic frequently must refuse applications for vasectomy because of the youth of the applicant or for lack of sufficient therapeutic or eugenic indications.

The many authorities who have examined the present trends in the birth rate are unanimous in their opinion that the American population is being produced by those of the lowest social economic and intelligence levels at about twice the rate which obtains for those in the higher brackets. Birth control propaganda is held to be largely responsible. Parents of intelligence who are able to employ a private physician can obtain scientific contraceptive advice while patients who are dependent upon public clinics and hospitals are denied it with very few exceptions. The most notable exception is the state of Carolina where the State Board of Health has already established more than sixty clinics where the indigent sick are given the same intelligent scientific advice as is procurable from private physicians. In one year the maternal mortality has shown a gratifying decrease. In four years, the maternal mortality in Dade County was cut in half by the same method.

Contraceptive advice, however, is not sufficient for the feeble-minded, psychopathic, alcoholic, epileptic and other persons unfitted for parenthood, for all too frequently they will not or cannot cooperate. For these individuals only sterilization is effective in preventing them from further burdening the community with their diseased and defective offspring. While there is a high infant mortality in these groups, yet it is not sufficient to offset their terrifically high birth rate. Families of ten and twelve are common among them and even twenty and more children have been noted in the records of this Clinic. This high birth rate persists also in the succeeding generations until one feeble-minded pair, in several generations, can produce a whole colony of undesirables.

The tendency in legalizing sterilization is away from the compulsory toward the voluntary. This is much simpler to administrate as

it does away with the cost and delay of court procedure and gives the responsibility to the doctors the same as for any other surgical procedure. The alternative to voluntary sterilization for a feeble-minded or insane person would be commitment to a custodial institution. Those who do not have antisocial tendencies, if sterilized, might be free to marry and live what is for them a normal life in the community.

One type of bill which has been recommended by experts for the State of Florida would require any hospital supported by public funds to accept for sterilization patients who presented themselves with the proper recommendation from the examining physician. Until such law, or some other, is passed, sterilization is not illegal and can be performed by any surgeon in any hospital when it is deemed necessary or conducive to the patient's health or welfare.

Every feeble-minded or psychopathic man or woman sterilized in Florida is a gain in improving the State's general health and welfare. Each sterilization removes from the tax payers certain items of cost which further pregnancies and support of the families would entail. Sterilization of deficient and defectives, by helping to raise the general intelligence level, is a valuable contribution to the preservation of a free Democracy. It should be looked upon by the medical profession as a patriotic duty as well as an opportunity to perform valuable services to the State.

#### RELEASE FORM

Miami, Florida,

Date \_\_\_\_\_

I hereby request and consent to have Dr. \_\_\_\_\_ perform a sterilization operation for me and also to perform and give such other medical and surgical procedure and treatment which in his opinion shall be advisable and beneficial to me and which in his opinion shall be necessary to my welfare.

I further agree to release and do hereby release and discharge the said Dr. \_\_\_\_\_ from any and all claims, demands, suits, actions or causes of action or actions arising out of or by reason of his services, treatment, medication or surgery as prescribed and given or performed by him in this case.

\_\_\_\_\_(Seal)

\_\_\_\_\_(Seal)

Witnessed:

\_\_\_\_\_

Sign by both husband and wife. One copy is to be retained by the Mothers' Health Clinic. One copy to be given the Doctor or Hospital.

352 N. E. 32nd St.



## LOW BACK PAIN: BACKALGIA

EUGENE L. JEWETT, M. D.  
Orlando

Low back pain or backalgia, as Dr. J. J. Moorehead so aptly calls it, is one of the "bug-a-boos" of medical practice. Every doctor gets patient after patient complaining of acute, recurrent or chronic back pain. There are so many different types of back pain and so many causes for this condition that one is bewildered in his diagnosis and is haphazard in his therapy. A cursory history, a passing palpation of the low back, generally made with the clothes on, and the recommendation of diathermy or the wearing of a sacro-iliac belt comprises the average doctor's treatment of such a case. If there is time, and the doctor feels inclined to do so, a thorough search for a focus of infection may be made, and even a prostatic or vaginal examination done. However, rarely does the doctor work at this condition with the entire potential causation of this pain clearly in his mind. The following plan will, I believe, bring better visualization and more successful treatment of these common conditions. I am listing the various etiological factors in order better to keep them in mind.

### ETIOLOGY

**INTRINSIC CONDITIONS**—Those associated with pathology or change in the low back skeletal, muscular or neural tissues.

1. Poor posture with bad body mechanics causing undue strain on the low back. Made worse by obesity, pronated weak feet, and faulty footwear.

2. Direct and indirect trauma with various injuries to all the structures in the involved area resulting in hematoma with organized fibrosis and adhesions to neighboring structures. Fractures of the back and injuries to the intervertebral disks are not to be discussed under this heading. Sprains: Refer to joint injuries. Strains: refer to muscles, tendons, or ligaments.

3. Myofascitis or fibrositis from a focus of infection: lumbago.

4. Neuritis and neuralgia from a focus of infection: sciatica, intercostal neuralgia. Herpes zoster. This condition may be both intrinsic and extrinsic; the former from the local neural condition, whereas the focus of infection would be an extrinsic factor. Diabetes mellitus.

5. Arthritis of the lumbosacral spine.

6. Abnormalities of the spine and pelvis: spina bifida occulta, sacralization of the fifth transverse process, six or four lumbar vertebrae, dorsal type of facets, spondylolisthesis and spondylolisthesis, reverse spondylolisthesis.

7. Infection of vertebrae: osteomyelitis; Pott's disease.

8. Tumors of the spinal cord, nerves, lumbosacral plexus, pelvis, spine. Nucleus pulposus ruptures into the spinal canal, which are visualized by lipiodol intrathecal injections and roentgenograms in the upright and lying positions.

9. Myelitis. This condition, of course, is seldom localized to one part of the spinal cord.

NOTE: This paper will not take up coccygodynia or other conditions in this region.

### EXTRINSIC FACTORS

10. Pelvic disorders, soft tissue tumors, and malposition of the uterus.

11. Prostatic diseases and other urinary-tract conditions.

12. Constipations and visceroptosis.

13. Syphilis with tabetic crisis. Syringomyelia. Here again there is both an extrinsic and intrinsic condition.

14. Pregnancy—with relaxation of the pelvic ligaments and joints. Whether or not there is a relaxor substance of endocrine origin or a hormone is under investigation at this time.

### PATHOLOGY

Varied and depends on the etiology.

### SYMPTOMS

Varied from slight, dull, dragging sensation to attacks of severe knife-like pain with or without radiation throughout the abdomen and pelvis and down the leg.

### DIAGNOSIS

With these etiological factors clearly in mind it is most important to diagnose accurately the condition in each individual case. The finding of an abscessed tooth, a diseased tonsil, or a prostatic condition may be the answer. Any such focus should, of course, be removed at once and if the pain in the back clears up we are fairly certain of a correct diagnosis. However, we all have seen many patients with teeth out, tonsils removed, who had undergone various and sundry gynecological operations, but who were still having their same low back pain. A thorough search for any malfunctioning of the gastro-intestinal or genito-urinary tracts should be made. A gastro-intestinal series, a barium enema, cystoscopic examination or pyelogram may be necessary, and should be undertaken if indicated. Urine examinations, blood count, Wassermann, and thorough neurological examinations are all important. Let us not forget the role that upper respiratory and pulmonary foci of infection play in these back conditions.

Usually, however, the orthopedic investigation of this pain in the back is most important and altogether too often is least considered. A careful history must be made of the patient's



occupation and daily habits, so as to determine whether the patient stands and sits correctly, sleeps on too soft a sagging mattress, and whether there is chronic strain or too much or too little activity. A thorough examination must be made noting the posture; condition of the muscle tone of the body; obesity, if present; any abnormal curvatures of the back; any tilt of the pelvis. In these low back conditions the spine may tilt either toward the affected side or away from it; but generally acute cases show a tilt away from the involved side whereas chronic conditions with a superimposed neuralgic factor show the tilt toward the affected side. At times we find alternating scoliosis where the curvature shifts gradually or suddenly from one side to the other. The exact mechanism of these curves is not within the scope of this paper. We must also note whether the legs are straight and if they are the same length, the condition of the feet and arches, and how the patient walks and stands. Also, when the patient stands up with the legs straight and flexes to the floor, another point to notice is whether the anterior iliac spines go down to the same level as the greater trochanters. A failure to do this indicates shortening of the hamstrings, which is often found in old painful back cases.

Most cases of so-called sacro-iliac strain or disease, whether of traumatic or chronic faulty dynamics origin, are really lumbosacral conditions. This latter joint is the one that takes most of the stress from excessive labor (especially of a stooping or lifting type), or obesity with faulty body mechanics.

The points of tenderness in a back usually help us out a great deal in localizing the trouble. Sacro-iliac strain, per se, will result in definite tenderness over this joint, but the tenderness may be in different points along this synchondrosis. Iliolumbar ligament involvement is revealed by tenderness over these ligaments which stretch between the posterior superior border of the ilium and the transverse process of the last lumbar vertebra. This region is a little above and somewhat lateral to the sacro-iliac joint, which is itself covered by the posterior sacro-iliac ligaments. Lumbosacral strain generally causes tenderness over this junction, whereas lumbar backache is associated with tender spastic muscle groups

lying along the mid-lumbar vertebral column. With involvement of the interspinous ligaments of the lumbar spine there is definite tenderness between the tips of the spinous processes.

We have various tests to give us the differential diagnosis between sacro-iliac and lumbosacral conditions. I shall merely name some of these tests, the exact methods of eliciting and significance of which may be found in any of the various orthopedic books. If forward flexion of the trunk is performed through a greater arc with less pain in the sitting than in the standing position (with the knees straight) it points to a sacro-iliac and not a lumbosacral condition. In case of lumbosacral strain the lumbar spine is held rigid when the patient forward flexes, with practically all of the movement being carried out in the hip joints. The hamstrings will be the final check on this movement. In case of sacro-iliac strain, however, the lumbar spine is uninvolvement and will flex as far as possible, the motion being stopped by the rotation of the pelvis on the sacro-iliac joints through the action of the taut hamstrings. At this point strain is put on the sacro-iliac joint by the hamstrings and hence we get a greater range and less pain when these muscles are relaxed—as in sitting.

Hyperextension will be limited in both conditions because of the stress on all of these joints. Rotation of the trunk will be about normal in the lumbosacral case because little if any rotary motion occurs in this joint normally. In a sacro-iliac condition rotation will be limited and painful because of pressure brought to bear on these joints in this maneuver. When the patient lies supine the exaggerated lumbar lordosis is often seen; it remains present in the case of lumbosacral strain because of protective muscle spasm. However, at times we find a persistent flattening of the lumbar lordosis, which remains until the condition is cleared up. In sacro-iliac strain the patient can voluntarily flatten the lumbar lordosis by flexing the hips which relaxes the pull of the hamstring muscles. In the latter case the lumbar spine is not affected and the relaxed hamstrings do not exert tension on the sacro-iliac joints. Gaenslen's, Mennell's, Kernig's, Goldthwait's, Lasegue's (the straight leg raising), McBride's tests, if positive, are

indicative of sacro-iliac condition and may be elicited on the same or the opposite side of the involved joint. Generally with a right sacro-iliac strain the pain will be more pronounced in this joint area when the straight left leg is raised or when McBride's maneuver is carried out using the left leg. However, this is not always true, and in fact the exact evaluation of the above test is at times very difficult. Usually in these low back cases there is pain and tenderness all across the back and patients complain when either leg is tested. Another important point to notice during the straight leg raising is when the pelvis begins to rotate. The comparison with the opposite side will often show a wide variation in this respect.

In performing Gaenslen's test or some of the other torsion tests there is often a click or snap heard, which may be either in the sacro-iliac joint, the lumbosacral articulation, or in the ligamentous structures above these joints. Often this snapping or clicking is accompanied by relief of pain, and I believe that this is because the joint surfaces have been reapposed. Probably there has been a slight rotation of the articular cartilaginous plates. Some authors think that the slipping of a ligament or tendon over a bony prominence may be the origin of this snap or click. Ober's test should always be performed with either leg, and some authors are reporting a rather frequent positive finding of this test. In about one hundred consecutive cases I have not found one single positive test.

A history of direct or indirect trauma may be obtained and this may be the start of the patient's complaint or just an aggravating factor. We may get a contusion of soft or bony structures or there may be trauma to the joints themselves, often with injury to the articular cartilages. Usually people will blame their backache on a fall or strain when in reality they had chronic backache a long time before but not of a nature serious enough to cause disability or great pain. Direct injuries to the soft tissues are usually not difficult to diagnose but the various traumata affecting the joints in the low back region are a much harder proposition to interpret and localize. A sudden slip may produce the same pain as a case of chronic poor posture, but the actual damage done may be far different from that

in the other condition or, again, a similar maladjustment may be present in both cases. When we have pain in the back from stretching of fibrous tissues or adhesions the pain is less in the morning and more at night (increased by activity). Certain positions generally are more painful than others. Pain which has as its basis congestion or inflammation is generally a continuous ache and is made worse by activity and persists even during rest. This pain is not relieved by changes of position and there is stiffness after a rest period with more pain when the back is first moved after rest. When both of these conditions are present in the back at the same time it is most difficult to make an accurate diagnosis.

Roentgenograms are important in these back conditions, although many of them will be negative for any bony alteration or pathology. Anteroposterior and lateral views will usually suffice with, however, the oblique ones proving to be of more and more importance. These oblique plates are the only ones which will show the lumbar articular facets clearly or sagittal views through the sacro-iliac synchondroses. Also an incomplete linear fracture may be visualized through an oblique plate and not seen in the anteroposterior and lateral ones. At times a malaligned sacro-iliac joint may be identified by an elevation of one pubic bone above the other at the symphysis with no other positive roentgen evidence present. Of course, any malformation such as spina bifida occulta, sacralized last lumbar transverse process, or spondylolithesis will be seen by proper roentgenograms. With intrathecal lipiodol injections it is possible to visualize and localize a nucleus pulposus rupture into the spinal canal. This is relatively a new procedure and opens up a wide field in the correct interpretation of low back pain. Personally, I have had no experience with this method. It goes without saying that the x-ray is most important in the diagnosis of tumors, Pott's disease, and osteomyelitis. Also, Marie Strumpel's disease (spondylose rhizomelique) can be early detected by ankylosing changes in the sacro-iliac joints and later on by the same changes in the entire spine. Of course, in this condition the clinical history and examination is clear-cut and easily diagnosed.



Arthritis in the low back region may be at times diagnosed by the history of the case, symptoms, physical findings, and roentgenograms. At other times it is most difficult and usually marked hypertrophic osteoarthritis in the upper lumbar and dorsal spine will show no roentgenological change in the low back. Often we find lipping, however, in the lower borders of the sacro-iliac joints or in the articular facets or sacro-iliac joints themselves in the oblique views. There may be atrophic or infectious arthritis in the lower spinal joints without any direct roentgenological evidence. When the process gets further advanced we do see a thinning of the discs, rarification and roughening of the vertebral body borders, and then lipping may begin to be visible. In other words, in most of these cases that come to our attention there is a mixed atrophic and hypertrophic change present. The usual diagnostic methods for arthritis elsewhere in the body applies to the condition here.

#### TREATMENT

1. Probably the most common cause or contributing cause to low back pain is poor posture with or without overweight. In these cases we see the rounded shoulders, the forward protuberance of the head and abdomen, the exaggerated lumbar lordosis, pronated painful feet and ankles. The treatment for this complex syndrome is difficult and depends to a large extent on the intelligence and cooperation of the patient, his age, general health, and the type of his work or stage in life. In *Body Mechanics* by Drs. Goldthwaite, Brown, Swain, & Kuhns you will find an excellent treatise on these conditions. The average practitioner, however, can not carry out such a detailed exacting regime of treatment and will have to depend on a less elaborate armamentarium. The weight can be taken off by dieting and exercises, and the posture is possible of improvement through constant attention of the parents and friends and frequent checkups by the doctor in charge. Repeated strapping of the back, the wearing of sacro-iliac and lumbosacral supports and, in some cases, lumbodorsal supports, with occasionally the use of one of the various rigid supports, will be of great benefit to the patient.

The feet may have to be manipulated and supported by proper shoes and arches, with or without lifts to correct faulty weight bearing lines. We have several exercises, with which you are all familiar, that will improve the muscle tone of the feet and lower leg muscles, which are the supporting structures for the feet and arches as well as the motivating power for the members. The ligaments should only restrict abnormal mobility of the joints and should not support them. Footwear should be of the orthopedic or semi-orthopedic type and the stockings or socks should not be too tight.

Abdominal and back exercises are important for these poor posture cases, but should be gradually increased and not made too hard for the weakened musculature. In between the regular exercises some sort of support may have to be worn. The physician or trained physiotherapist should carefully instruct the patient as regards his exercising, and should see him at regular intervals. Often golf, tennis or swimming may help, with the latter being probably the best all around developer that we have in the field of sports. A business man will usually use a stationary machine or row a boat, but will not engage in just exercising. If there is a gymnasium class in the community, this is generally a good thing to have him join. Physiotherapeutic measures often will help—at least symptomatically. A hard mattress is a great help to most of the patients.

2. Patients with acute direct and indirect trauma should have their backs supported or strapped, with rest in bed until the acute symptoms have subsided and healing has begun. There are various degrees of severity of these injuries, and most of them will not seriously incapacitate a patient. After a week or two of immobilization of the back through a plaster cast, strapping, sacro-iliac or other low back support, normal activity may be engaged in. If, however, the patient is seen after fibrosis and adhesions have formed we have a different picture. These conditions will need more extensive physiotherapy with diathermy heading the list, combined with manipulations and probably novacain injections. Usually manipulations under anesthesia are not necessary but every now and then anesthesia has to be employed. Several manipulations can be



done on the conscious patient, and I follow a regular routine whether the injury be in the lumbosacral or sacro-iliac joints. Of course, if it is higher up in the lumbar area or in the iliolumbar ligaments these manipulations are not as useful.

With the relaxed patient on his back and the operative hands placed under the small of the patient's back, the back and buttocks of the patient are suddenly lifted from the table. This maneuver usually is painful but does tend to relax and stretch the low back joints, and may result in a click and relief to the patient. After several of these lifting movements the patient is made to grasp his flexed knees with his hands, thereby flexing the thighs and his head and body is made into a ball and rocked back and forth on the spine. Then the patient, turned on one side, grasps the under flexed knee as tightly as possible (as in Gaenslen's test) thereby rounding the back and obliterating the lumbar lordosis and also fixing the pelvis. The operator then faces the patient, grasping the patient's upper shoulder with one hand and the iliac crest with the other with the upper leg lying in moderate flexion behind the other. Then, while the patient's shoulder is pushed suddenly backward and downward, the iliac crest is pulled forward, the resultant motion being rotation of the spine and pelvis. Oftentimes this maneuver will elicit a click, and at times the patient will notice relief from pain at this instant. Then the patient is turned on the other side and the maneuver carried out exactly as before. Next the patient is placed prone and, by putting one arm under the patient's thighs and the other hand over the sacrum, sudden hyperextension is produced by lifting the patient's legs from the table, at the same time keeping the sacrum and rest of pelvis on the table. This will often be painful to the patient, but every now and then a click or sudden relief of pain will be encountered. After this procedure, it is my practice to strap the back (the tape completely encircling the pelvis). All hair, of course, should be carefully shaved off and tincture of benzoin applied to the skin, which will in most cases lead to a less painful and easier removal of the adhesive.

Every now and then it seems advisable to hospitalize a patient, and either give him a

more thorough and elaborate set of manipulations similar to those described or follow Baer's manipulative treatment. Of course, these patients should be completely anesthetized, and are best kept in the hospital at least a few days after the manipulations. A day or two after this treatment they are started on physiotherapy, and are allowed to be ambulatory within a week or two after the treatment. Some patients seem to do better in a plaster shell or cast, generally with the thighs somewhat flexed if the cast goes down to the knees. This immobilization should not be left on longer than two weeks, at which time physiotherapy and exercises are started.

3. The painful back from myofascitis or fibrositis, whether it be from a recognizable focus of infection or not, presents a somewhat similar picture to the one of trauma. The pathology may be different, but the clinical picture is very similar except that the acute symptoms are more widespread and no hematoma can be felt. There may be muscle spasm, however, with or without an abnormal curvature of the spine. If a focus is found, of course it should be removed, but in the meantime the back should be treated by rest or immobilization with or without the use of physiotherapy. With the subsidence of the acute symptoms the same general treatment should be carried out as given above for traumatic cases. Often, however, the clearing up of a focus will lead to a subsidence of the back pain in short order. In these chronic cases novocain injections into the involved areas will every now and then produce a startling result, which may be permanent.

4. When we find a neuritis or neuralgia from a focus of infection the patient is best treated in bed with or without Buck's extension on the lower extremities until the focus is cleared up. These people usually feel better with the thighs and knees somewhat flexed and at times with a small pad beneath the lumbar spine. In many cases, however, sciatica is really secondary to sacro-iliac or lumbosacral conditions and clears up with adequate therapy to these regions. Perineural injections of normal saline or novocain are at times well worth trying, although the good result will not by any means be uniform. The practice of "stretching" these sciatic nerves is happily on

the decline. Later on, when there is absolute evidence of a quiescence of the condition and with adhesions present, some such maneuver as Baer's may be carefully and cautiously carried out. A sufficient number of more or less serious injuries to the sciatic nerves have been reported from this maneuver to make us wary of its universal use.

These patients need massive and continuous doses of Vitamin B<sub>1</sub>, and often intravenous injections of iron and arsenic help.

5. The treatment of arthritis of the joints in the lumbosacral region depends largely on the type of arthritis present. Acute atrophic or infectious arthritis demands rest in bed with a thorough search for a focus. Do not forget that gonococcus is prone to produce such a condition in the low back and clearing up of the primary infection will often at once lead to rapid cure of the back ailment. The old osteoarthritic spine, on the other hand, will need only some type of support, usually plaster or Castex jackets or a low spine brace. The cloth braces and supports are useful only in the less severe cases. Manipulations here must be undertaken with care and lack of force, because of the danger of breaking off the spurs. If the pain is a part of generalized arthritis, the treatment for the symptomatic condition will help the local back area.

6. The various abnormalities of the spine and pelvis if not very pronounced generally respond to physiotherapy, exercises, rest and supports. If the condition is pronounced and very painful or deforming, grafting or ankylosing operations must be done. People with these backs must be warned not to attempt anything that might injure them still further or put too great a strain on the defective region.

7. Osteomyelitis and Pott's disease in the low back are treated the same as for these conditions elsewhere in the vertebral column. The details of this therapy are not in the scope of this paper.

8. Tumors of the spinal cord, the lumbosacral nerve plexus, or of the vertebral column or spine demand special investigation and highly specialized treatment. The main duty of the general practitioner in these cases is to diagnose them and turn them over as rapidly as possible to the proper specialist.

9. Infectious myelitis is generally fatal although recent work has seemed to offer some hope from massive doses of Vitamin B<sub>1</sub> intrathecally.

#### EXTRINSIC CAUSES

10. 11. 12. For the patients with extrinsic causation of low back pain the correction of the primary defect plus supportive therapy for the back will generally clear up the situation. I shall not go into the details of treatment of genito-urinary, gastro-intestinal, or gynecological conditions. It might be said here, however, that Dr. Fred Albee has reported excellent results in these low back cases from colonic irrigations plus alteration in the bacterial flora of the large intestine.

13. Syphilis demands general antiluetic treatment, but for syringomyelia we have no cure, and the only thing we can do is support the back properly, restrict activity and allay pain.

14. A painful back in pregnancy is best supported with a well fitting corset or brace, which will support the back and pelvis but not interfere with the fetal movements or growth.

#### CONCLUSION

A "backalgic" back should be investigated the way one attacks a crossword puzzle or attempts to solve a mystery story. The physician often will have to bring into play all of his faculties, much of his medical knowledge, and a great amount of perseverance. Conditions that have been present for years usually can not be overcome in a day or two. A doctor must not only find the cause of the ache and treat the condition, but must improve the patient's mental attitude and enlist his optimistic cooperation and help.

The orthopedic aspect of these low back pains is often grossly neglected or overlooked. A plea is therefore made for a more careful history, a more painstaking thorough examination, and the establishing of the correct diagnosis as soon as possible. With the diagnosis made, the correct mode of attack will be evident, and we will then be able to say good-bye to the "shot in the dark" method of treating these afflictions of the low back.



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**PHYSICIANS NEEDED FOR ARMY SERVICE**

The physician, like every other American, has become actively interested in our national security and stands ready to contribute his services as required for military preparedness.

The immediate problem in this connection is one that concerns the War Department, and primarily the young physician. The War Department must procure sufficient additional personnel from the medical profession to augment the medical services of the Regular Army as the various increases are made in the strength of the Regular Army, as authorized by Congress to meet the partial emergency. The young physician is especially concerned because it is usually advantageous, and is often more convenient for him to serve with the Army.

Present plans of the War Department are designed to make service attractive and instructive for the young physician. If the physician holds a Medical Corps Reserve commission he can be ordered to active duty if he so requests. If he does not hold a commission, but is under 35 years of age and is a comparatively recent graduate of an accredited school, he may secure an appointment in the Medical Corps Reserve for the purpose of obtaining extended active duty for a period of one year or longer. Duty is

given at General Hospitals, Station Hospitals, and with Tactical Units, and embraces all fields of general and specialized medicine and surgery. Excellent postgraduate training is obtainable in connection with Aviation Medicine. After serving 6 months of active duty in the continental United States, a Reserve Officer may request duty in Hawaii, Panama, or other United States territories and possessions. The initial period for duty is for one year and yearly extensions are obtainable thereafter until the international situation becomes more clarified and our domestic military program becomes stabilized.

Many young doctors who have served with the Army on extended active duty have taken the competitive examination for entrance into the Medical Corps of the Regular Army. Extended active duty affords an excellent opportunity for the physician to observe modern military medicine and the facilities that exist for a complete and comprehensive medical practice.

Pay is according to rank, and, including subsistence and quarters allowances for an officer with dependents, amounts to an annual sum of \$3,905 for a Captain and \$3,152 for a First Lieutenant; or, without dependents, to an annual sum of \$3,450 for a Captain and \$2,696 for a First Lieutenant. In addition, reimbursement is made for travel to duty station and return.

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**DISTRICT MEETINGS "A," "B,"  
AND "C"**

Arrangements have been completed for the first series of three medical district meetings. Dr. Robert B. McIver, chairman of the Council, has completed the programs for the scientific sessions. The local committees on arrangements for the entertaining societies have met with Dr. Stewart Thompson, managing director of the Association, and completed plans for entertainment of the doctors, guests and ladies. Printed programs will be mailed from the Association's home office to all the members of the three districts a week or ten days in advance of the meetings.

This will be the fourth annual meeting in

each medical district. The attendance has increased steadily from year to year as the doctors realize that this is a splendid opportunity to meet their colleagues informally and to enjoy a program of good scientific papers, which this year includes a guest speaker from some other medical district in the state. It is also an annual opportunity for the members to meet personally the officers of the State Association. Following are the places and dates of each of the three medical district meetings and the names of members of the local committees on arrangements.

DAYTONA BEACH—October 3. Local committee on arrangements: Drs. Ludo von Meysenbug, chairman; George M. Green, J. H. Rutter and R. L. Miller.

LAKE CITY—October 4. Local committee on arrangements: Drs. T. H. Bates, chairman; W. S. Nichols and Harry S. Howell.

PENSACOLA—October 5. Local committee on arrangements: Drs. J. M. Hoffman, chairman; Herbert L. Bryans and J. J. McGuire.

#### FUNCTIONS OF A. M. A. PREPAREDNESS COMMITTEE ORGANIZATIONAL SETUP AND THE ACTIVITIES OF THE NATIONAL GROUP

The functions of the National Committee on Medical Preparedness of the American Medical Association, together with those of state chairmen and the names of the latter, are reported in the Medical Preparedness Section of *The Journal* of the Association for Aug. 3. Discussing the national committee, the report says:

This committee was created by the House of Delegates of the American Medical Association to cooperate with the Advisory Commission on National Defense, the Army and Navy Medical Corps, the United States Public Health Service and all other federal agencies in preparing our nation medically to meet any emergency. The functions of the Committee include the following activities:

1. Meetings devoted to consideration of problems involved in providing medical personnel for military, naval and civilian needs.

2. Consideration of the provisions of medical personnel for physical examination, particularly of young men who are conscripted for medical service, young men assigned to vocational training, persons on relief and those concerned with war industries.

3. Consideration of economic problems including financial arrangements, leaves of absence, part-time service and other factors associated with civilian medical services.

4. To maintain contact and to represent the Association in conferences with the Surgeon Generals of the Army, Navy and Public Health Service and, when necessary, with other governmental agencies.

5. To maintain contact with the state chairman on medical preparedness.

6. To encourage and coordinate the activities of the various state chairmen for the National Committee on Medical Preparedness.

7. To formulate instructions for the guidance of state chairmen.

8. To review and to approve or disapprove recommendations received from state chairmen.

#### ACTIVITIES OF STATE CHAIRMEN AND COMMITTEES ON MEDICAL PREPAREDNESS

The functions of the state chairmen for the State Committees on Medical Preparedness are an extension of the functions initiated and developed by the National Committee. The National Committee on Medical Preparedness includes representatives located in all of the various Army Corps areas and Naval districts. The state chairmen for the Committee on Medical Preparedness maintain contact with other state chairmen in their vicinity through the corps area representative of the national chairman and maintain contact also with the headquarters office of the American Medical Association, which acts as headquarters for the National Committee on Medical Preparedness.

The functions of a state chairman include the following:

1. Contact with and coordination of the activities of state, county and district medical societies.

2. Cooperation with county medical societies in securing completion and return of the questionnaire on personal information.

3. To establish mechanisms for securing supplementary information to the questionnaire when necessary.

4. To organize a state committee on medical preparedness to be composed of the president and the secretary of the state medical society, the state chairman for the Committee on Medical Preparedness and ex officio the member of the Committee on Medical Preparedness of the American Medical Association within whose corps area the state is located and such other members as this group may select.

5. To assist in the organization of county committees on medical preparedness.

6. To invite local and state health authorities to participate in the work of the program particularly in the matter of civilian health.

7. To arrange for the dissemination of information on medical preparedness to the groups that are concerned with any particular matter.

8. To assist in the verification of the qualifications of physicians desired for service in the Army, industry, special physical examinations and other special work necessary for national defense.

9. To report to the Committee on Medical Preparedness a list of the names of physicians from each county of the state whose services are believed to be necessary for the maintenance of civilian health and who should, in the opinion of the state committee on medical preparedness, be exempt from military service.

#### STATE CHAIRMEN

ALABAMA—Dr. J. N. Baker, 519 Dexter Ave., Montgomery.

ARIZONA—Dr. Charles S. Smith, Nogales.

ARKANSAS—Dr. W. R. Brooksher, 602 Garrison Ave., Fort Smith.

CALIFORNIA—Dr. Philip K. Gilman, 2000 Van Ness Ave., San Francisco.

COLORADO—Dr. John W. Ames, 227 16th St., Denver.

CONNECTICUT—Dr. George M. Smith, Pine Orchard.

DELAWARE—Dr. William H. Speer, 917 Washington St., Wilmington.

DISTRICT OF COLUMBIA—Dr. F. X. McGovern, 1835 I St., N. W., Washington.

FLORIDA—Dr. Edward Jelks, P. O. Box 1018, Jacksonville.



GEORGIA—Dr. Edgar H. Greene, 478 Peachtree St., N. E., Atlanta.

IDAHO—Dr. J. N. Davis, 204 4th Ave. E., Twin Falls.

ILLINOIS—Dr. Harold M. Camp, 224 S. Main St., Monmouth.

INDIANA—Dr. Charles R. Bird, 23 E. Ohio St., Indianapolis.

IOWA—Dr. T. F. Suchomel, 305 2nd St., Cedar Rapids.

KANSAS—Dr. F. L. Loveland, 109 W. 9th St., Topeka.

KENTUCKY—Dr. Arthur T. McCormack, 620 S. 3rd St., Louisville.

LOUISIANA—Dr. C. Grenes Cole, 921 Canal St., New Orleans.

MAINE—Dr. John G. Towne, 48 Elm St., Waterville.

MARYLAND—Dr. Charles W. Maxson, 827 N. Charles St., Baltimore.

MASSACHUSETTS—Dr. Alexander S. Begg, 8 Fenway, Boston.

MICHIGAN—Dr. Burton R. Corbus, 110 Fulton St., Grand Rapids.

MINNESOTA—Dr. F. L. Smith, 102 2nd Ave. S. W., Rochester.

MISSISSIPPI—Dr. T. M. Dye, Box 295, Clarksdale.

MISSOURI—Dr. Robert Mueller, 3115 S. Grand Ave., St. Louis.

MONTANA—Dr. Herbert T. Caraway, 115 N. 28th St., Billings.

NEBRASKA—Dr. A. A. Conrad, Crete.

NEVADA—Dr. C. W. West, 120 N. Virginia St., Reno.

NEW HAMPSHIRE—Dr. Deering G. Smith, 77 Main St., Nashua.

NEW JERSEY—Dr. Charles H. Schlichter, 556 N. Broad St., Elizabeth.

NEW MEXICO—Dr. L. B. Cohenour, 221 W. Central Ave., Albuquerque.

NEW YORK—Dr. Samuel J. Kopetzky, 71 E. 80th St., New York.

NORTH CAROLINA—Dr. F. Webb Griffith, Lake View Park, Asheville.

NORTH DAKOTA—Dr. L. W. Larson, 221 5th St., Bismarck.

OHIO—Dr. Harry V. Paryzek, 25 Prospect Ave. N. W., Cleveland.

OKLAHOMA—Dr. Henry H. Turner, 1200 N. Walker St., Oklahoma City.

OREGON—Dr. Charles E. Hunt, 132 E. Broadway, Eugene.

PENNSYLVANIA—Dr. Charles H. Henninger, 500 Penn Ave., Pittsburgh.

RHODE ISLAND—Dr. Halsey De Wolf, 199 Thayer St., Providence.

SOUTH CAROLINA—Dr. Edgar A. Hines, Seneca.

SOUTH DAKOTA—Dr. William Duncan, Webster.

TENNESSEE—Dr. W. C. Dixon, 706 Church St., Nashville.

TEXAS—Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth.

UTAH—Dr. John F. Sharp, 75 S. Main St., Salt Lake City.

VERMONT—Dr. Benjamin F. Cook, 46 Nichols St., Rutland.

VIRGINIA—Dr. Hugh H. Trout, 1301 Franklin Road, Roanoke.

WASHINGTON—Dr. Raymond L. Zech, 509 Olive Way, Seattle.

WEST VIRGINIA—Dr. Benjamin H. Swint, 240 Capitol St., Charleston.

WISCONSIN—Dr. R. E. Fitzgerald, 2750 N. Teutonia Ave., Milwaukee.

WYOMING—Dr. George H. Phelps, 1606 Capitol Ave., Cheyenne.

PUERTO RICO—Dr. O. G. Costa-Mandry, Dept. of Health, San Juan.

## MEDICAL LICENSES GRANTED

Dr. W. M. Rowlett, Secretary of the State Board of Medical Examiners, reports that out of 81 applicants who took the Board's examination on June 16 and 17, 78 successfully passed the examination and were issued licenses on July 23.

The following are the names and addresses of the successful applicants:

Adler, Lawrence; Brooklyn, N. Y., (Long Island College).

Ayer, Orion Thomas (Col.); St. Louis, Mo., (Meharry).

Ayres, Wm. B.; Miami Valley Hospital, Dayton, O., (Northwestern).

Barton, Charles T.; Moultrieville, S. C., (Cincinnati).

Beardsley, Leon A.; Panama City, (Cornell).

Bell, Bernard T.; Coral Gables, (Tennessee).

Bellville, Charles George; Emory, Ga., (Emory).

Black, Thomas Claiborne; Orlando, (Kansas).

Blank, Henry S.; Lake City, (George Washington).

Brannan, Max; Merced, Calif., (Tulane).

Breitbart, Raymond; Kissimmee, (Michigan).

Browning, John Rogers; Cotton Valley, La., (Tenn.).

Capland, Lewis; Miami Beach, (Rush).

Carter, Albert Wesley, Jr.; Atlanta, Ga., (Georgia).

Childs, Lincoln Bliss (Col.); Nashville, Tenn., (Meharry).

Cirlin, Marcus B.; Chicago, Ill., (Illinois).

Clay, Charles L.; Miami, (Columbia).

Clover, James Wesley, Jr.; Atlanta, Ga., (Georgia).

Collins, Cecil Curtis, Jr.; Baltimore, Md., (Duke).

DeVaughn, Nathan M.; Montezuma, Ga., (Georgia).

Dickens, Henry Bailey, Jr.; Bristol, Ga., (Georgia).

Dietrich, James F.; Atlanta, Ga., (Indiana).

Eller, Joseph J.; New York, N. Y., (Fordham).

Fields, J. Allen; Sanford, (Louisiana).

Flanagin, Wiley Stewart; Waycross, Ga., (Georgia).

Fleet, Joel; Live Oak, (Tulane).

Furey, Thomas Edward; Detroit, Mich., (Wayne).

Gammage, F. V.; Chattahoochee, (Starling).

Goodman, Bernard; Mayview, Penn., (Temple).

Green, Daniel; Jacksonville, (New York & Flower).

Greene, Leon N.; Brooklyn, N. Y., (Columbia).

Halford, Richard; Miami, (Georgia).

Hallstrand, Harold O.; Milwaukee, Wis., (Northwestern).

Harris, Willis W.; Bee Ridge, Fla., (Duke).

Haverfield, William Tracy; Jacksonville, (Ohio).

Heath, R. W.; St. Petersburg, (Georgia).

Hinman, Louis F.; St. Petersburg, (Jefferson).

Jahn, Julius Robert; Winter Haven, (Temple).

James, Lorenzo, Jr.; West Palm Beach, (Tennessee).

Lippman, Morris C.; New York, N. Y., (Erlanges, Germany).

Loenholdt, Erich; Daytona Beach, (Minnesota).

Lombardo, Samuel S.; Pensacola, (Illinois).

Lytton, Louis G.; Cleveland Heights, O., (Georgetown).

McQuire, John F.; Tampa, (Georgetown).

Martin, David Martin; West Palm Beach, (Duke).

Martin, Wilbur C. (Col.); St. Louis, Mo., (Meharry).

Mayer, Robert Albert; Cincinnati, O., (Cincinnati).

Meehan, Mat P.; Miami, (Georgetown).

Merritt, James White, Jr.; Miami, (Emory).

Michaels, J. P.; Orlando, (Tulane).

Nadler, Alfred J.; Brooklyn, N. Y., (Albany).

Overstreet, Ralph M.; Miami, (Louisville).

Parks, Lorenzo Lynn; Jacksonville, (Vanderbilt).

Powers, Leander K.; Guyton, Ga., (Georgia).

Rawls, Katrine; Augusta, Ga., (Georgia).

Reckson, Murray M.; Brooklyn, N. Y., (Maryland).

Ritch, Una Fain; Jesup, Ga., (Georgia).

Rossi, John S.; Miami, (Long Island).



Rubin, Harold S.; Brooklyn, N. Y., (New York).  
Sackett, Walter W.; Miami, (Rush).  
Schianck, George P.; (Col.); Orlando, (Melharry).  
Sears, Warren H.; Springfield, Mass., (Johns Hopkins).  
Shaw, Vaughan A.; Gainesville, (Pennsylvania).  
Stamps, Walker; Raleigh, N. C., (Harvard).  
Stewart, Roy Allen; Atlanta, Ga., (Emory).  
Sullivan, Francis M.; Norcross, Ga., (Emory).  
Teagarden, Elmer J.; Orlando, (Johns Hopkins).  
Todd, James W.; Belton, S. C., (Emory).  
Truog, Clarence P.; Miami, (Minnesota).  
Wager, Harold Edmond; Atlanta, Ga., (Emory).  
Walker, Jean; Fort Lauderdale, (New York).  
Weil, Leonard L.; Miami Beach, (Illinois).  
Westermann, J. J., Jr.; New York, N. Y., (Columbia).  
Whitney, H. H.; Dallas, Tex., (Rush).  
Whitney, Karl Roberts; Daytona Beach, (Tufts).  
Wilensky, Louis A.; Jacksonville, (Emory).  
Williams, J. Maxwell; Lakeland, (Tulane).  
Wynegar, David E.; Chattahoochee, (Nebraska).

## BIRTHS, MARRIAGES AND DEATHS

### BIRTHS

Dr. and Mrs. M. B. O'Kelley of Leesburg announce the birth of a son, Marion B., Jr., on May 7, 1940.

### MARRIAGES

Dr. Harold Rand of Miami and Miss Gertrude Goodman of Englewood N. J., were married at Atlantic Beach, L. I., June 16.

\* \* \*

Dr. Gladstone E. Francisco and Miss Beatrice Klitchko of Miami were married at Miami Shores on June 19.

### DEATHS

Dr. Benjamin F. Eckman of Miami died on July 10, 1940.

## STATE NEWS ITEMS

The following Florida doctors attended the Southern Pediatric Seminar, held recently in Saluda, N. C.: Fred D. Bartleson, Ft. Myers; William H. Ball, Jacksonville; Everett C. Crouch, Jasper; Laurie J. Arnold, Jr., Lake City; S. A. Clark, Lakeland; William P. Rice, Orlando; Robert C. Black, Plant City; James L. Massey, Quincy; J. D. Parker, Stuart.

\* \* \*

All members of the Florida Medical Association are cordially invited to attend the meeting of the Southeastern Surgical Congress, which will be held at the Jackson Memorial Hospital, Miami, Saturday, August 31, 1940, at 9:30 a. m. An excellent scientific program has been arranged. This is a splendid opportunity for a Labor Day holiday. The preliminary program may be found in your July Journal, page 37.

The official dates for the 1941 annual meeting of the Florida Medical Association are April 28, 29 and 30. These dates were set by the Executive Committee of the Association and confirmed by the Duval County Medical Society.

\* \* \*

At the annual meeting of the Chattahoochee Valley Medical Association, held in Atlanta the early part of July, Dr. Herbert E. White of St. Augustine was elected second vice-president and Dr. Robert B. McIver of Jacksonville was elected secretary-treasurer. The 1941 annual meeting of the organization will be held in Jacksonville, July 8 to 10. The following Florida doctors attended the Atlanta meeting:

J. S. Turberville, Century; J. M. Dell, Jr., Gainesville; James L. Borland, L. Y. Dyrenforth, Karl Hanson, Raymond King, J. G. Lyerly, Robert B. McIver, C. C. Mendoza, Kenneth Morris and F. J. Waas, Jacksonville; Herbert E. White, St. Augustine.

\* \* \*

Dr. Julius R. Pearson of Miami Beach is spending two months studying in clinics at Boston and New Haven, and vacationing in the New England States. He expects to return October 1.

\* \* \*

Colored reproductions of Dean Cornwell's new painting, "Osler at Old Blockley," suitable for framing, may be obtained free of charge from John Wyeth & Brother, Inc., 1600 Arch Street, Philadelphia, Pa. Send for your picture today. Refer to page 106 of this issue for a further description of this beautiful picture.



## MEDICAL DISTRICT MEETINGS

Daytona Beach (C) . . . Oct. 3  
Lake City (B) . . . . . Oct. 4  
Pensacola (A) . . . . . Oct. 5  
Dunedin (D) . . . . . Oct. 31  
Ft. Pierce (E) . . . . . Nov. 1  
Miami (F) . . . . . Nov. 2

The American Board of Ophthalmology will conduct only one written examination during 1941. This will be held in various cities throughout the country on March 8. Candidates enrolled in the Preparatory Group who have been advised that they will be eligible for examination during 1941 should make application at once to take this written examination. Any one who plans to take the examination during 1941 should write immediately for formal application blanks to the American Board of Ophthalmology, 6830 Waterman Avenue, St. Louis, Missouri.

\* \* \*

Dr. C. J. Bible of Miami returned the early part of July from an extended trip to the West Coast, including Yellowstone Park and the San Francisco Fair.

\* \* \*

Dr. George E. Miller of St. Petersburg spent five weeks in New York State, visiting hospitals and clinics, after attending the A. M. A. meeting.

\* \* \*

Dr. Steve R. Johnston of Ft. Pierce has opened offices at 211 N. Second Street. Doctor Johnston formerly practiced in Okeechobee.

\* \* \*

Dr. and Mrs. John Allen Johnston of Ft. Lauderdale celebrated their thirtieth wedding anniversary on July 10.

\* \* \*

Florida doctors who attended the meeting of the American Proctologic Society in Richmond, June 9 to 11, were: Leigh F. Robinson, Ft. Lauderdale; Ralph F. Allen, Claude G. Mentzer, Miami; and Charles E. Hebard, St. Petersburg.

\* \* \*

Dr. James J. Nugent of Miami recently spent two months visiting the Mayo Clinic and urological clinics in St. Louis, Chicago and Cincinnati. Doctor Nugent visited his parents in Montana before returning home.

\* \* \*

Dr. W. T. Simpson of Winter Haven visited clinics in the New Charity Hospital, New Orleans, during July. Doctor Simpson extended his trip through the West and to California.

Dr. W. M. Rowlett of Tampa and Dr. H. D. Van Schaick of Jacksonville were recently reappointed by Governor Fred Cone for four-year terms as members of the State Board of Medical Examiners. Doctor Rowlett has served on this Board for the past 23 years.

\* \* \*

Florida doctors who attended the meeting of the American Society of Clinical Pathologists in New York, June 6 to 10, were Drs. F. H. Dieterich, Miami; V. M. Johnson, West Palm Beach; and C. E. Royce, Jacksonville.

\* \* \*

In the May Journal, page 562, missing numbers of Transactions and Journals of the Florida Medical Association were listed. Dr. J. Harris Pierpont of Pensacola, past president of the Association, on reading the notice, immediately forwarded a cloth-bound copy of the Transactions for 1900 and a paper covered copy of the Transactions for 1899. The officers and members of the Association are indebted to Doctor Pierpont for this valuable contribution of old records that have been missing from our library for many years.

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### BENJAMIN FRANK ECKMAN

Dr. Benjamin F. Eckman died at his home in Miami on July 10, 1940, at the age of 72, following an extended illness.

Doctor Eckman received his medical degree from the Ohio Medical College in 1889. He practiced in the Cincinnati district for several years. In 1921 he took the examination of the State Board of Medical Examiners in Florida and began his practice in this State. For some time he was located in Miami but later moved to Homestead, dividing his time between that city and Coral Gables. He is survived by a daughter, Miss Patty Eckman of Cincinnati, and a brother Dr. W. Guy Eckman of Covington, Ky. The burial was held in Cincinnati.

Doctor Eckman was a surgeon of fine ability, respected and admired by his colleagues. He was an honorary member of the Dade County Medical Society and the Florida Medical Association, and a member of the American Medical Association.

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## MARION ERNEST QUINA

Dr. M. Ernest Quina, 57, who practiced in Pensacola for 34 years as an eye, ear, nose, and throat specialist, died at the Pensacola Hospital on June 12, following an illness of several months.

Born in Pensacola in 1882, Doctor Quina was the son of the late Mr. and Mrs. Marion A. Quina. He received his medical training at Tulane University from which he graduated in 1905, at the Eye, Ear, Nose and Throat Hospital of Chicago, and later at Vienna where he did special work.

In 1906 Doctor Quina began the practice of his specialty in Pensacola. He served as physician in both the Army and the Navy during the World War. His Army service was brief, as in 1917 he entered the Navy as a lieutenant in the Medical corps and was assigned to the hospital at the Naval Air Station in Pensacola. He also served as specialist on the staff of the Pensacola Hospital and for the Louisville & Nashville and Frisco railroads. He was a former president of the Frisco Medical Society and was a member of the American, Southern, and Florida Medical Associations and of the Escambia County Medical Society. He was a member of the Rotary club, the Pensacola Country Club, the Knights of Columbus, and a former member of the Elks' lodge.

Doctor Quina married Miss Grace Reid of Philadelphia who survives him. Other survivors include two sons, Marshall and Clarence, and a daughter, Corinne, of Pensacola; two brothers, Albert and Willie Quina, of Pensacola; and two sisters, Mrs. George Prindible of Harrisburg, Pa., and Mrs. Richard H. Turner of Pensacola, besides nieces and nephews.

## COMPONENT COUNTY SOCIETIES

## DADE

On July 3 the Dade County Medical Society met in the Sunshine Room of the Ingraham Building. A symposium on "Superficial Infections" comprised the scientific program, presented as follows:

"Surgical Treatment"—Dr. C. Larimore Perry.

"Medical Treatment"—Dr. Paul K. Jenkins.

"X-ray Treatment"—Dr. Alfred G. Levin.

The discussion was opened by Drs. John C. Turner and Gerard Raap.

\* \* \*

## DE SOTO-HARDEE-HIGHLANDS-CHARLOTTE-GLADES

Members of the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society held their regular meeting at the Hotel Simmons, Wauchula, on the evening of July 9. Attending this meeting were: Drs. G. F. Highsmith and C. H. Kirkpatrick of Arcadia; G. S. McKnight of Avon Park; H. E. Boorum and H. V. Weems of Sebring; M. A. Collier, M. C. Kayton, and B. D. Spears of Wauchula.

\* \* \*

## PINELLAS

Two papers were presented at the meeting of the Pinellas County Medical Society held on the evening of July 5 at the Shrine Club, St. Petersburg: "Splenomegalia — Case Report" by Dr. W. M. Davis, and "Cholecystitis" by Dr. H. G. Morin.

At the second meeting of the month, held on July 19, Dr. E. B. Campbell was the principal speaker. His subject was "Excretory Function of the Small Intestine in Renal Insufficiency."

\* \* \*

## POLK

The Polk County Medical Society held its final meeting of the summer season at the Lake Region Hotel in Winter Haven, Wednesday, June 12. Dr. R. D. Thompson, head of the State Tuberculosis Sanatorium at Orlando, was the principal speaker. Dr. Henry Fuller of Mulberry, president of the Society, presided.

The next meeting of the Society will be held in October.



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\*"Treatment of Acute Anterior Urethritis with Silver Picrate," Knight and Shelanski, AMERICAN JOURNAL  
OF SYPHILIS, GONORRHEA AND VENEREAL DISEASES, Vol. 23, No. 2, pages 201-206, March, 1939.

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## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**Paralytic Ileus and Congenital Renal Deformity,**  
DYRENFORTH, LUCIEN Y., and MORRIS, KENNETH A., Jacksonville, *Urol. & Cutan. Rev.* **44:** 96-99 (Feb.), 1940.

Previous reports connecting renal dysplasia with ileus have been predicated on the basis of kidney insufficiency or disturbed metabolism. The authors, in an analysis of their three cases, suggest a different approach to the problem, namely, reflex influences on the physiological processes of the intestines from the dysplastic kidneys due to neurological association of these organs through the "plexuses of Meissner and Auerbach, or by way of the celiac ganglion or through the mesenteric neurovascular distribution or all of these."

Differential diagnosis of this specific type is dependent largely upon the recognition of the adynamic nature of the obstruction and comprehensive elimination of all possible causative factors of this type of ileus.

Contrary to previously reported cases of this type, the authors' patients were all 30 or under and showed no arteriosclerotic changes. Two of these cases followed trauma and a third, cesarean section; and all possessed marked kidney deformities.

**Epilepsy from the Neurosurgical Standpoint,**  
LYERLY, J. G., Jacksonville, *South. Med. & Surg.* **101:** 415-418 (September), 1939.

Epilepsy may be caused by lesions amenable to surgical treatment. Therefore, a careful neurological study of all types of convulsions is most important.

Epilepsy beginning in adult life should be assumed to be due to some organic change until proved otherwise. Brain tumor must be ruled out.

Removal of slow growing tumors, cardiac scars and cysts may bring improvement in cases that have gone on for years as idiopathic epilepsy. After such an operation all lesions responsible for epilepsy must have a medical regimen carried out for a long time to decrease cerebral irritability.

**Nutritional Anemia and Its Prevention,**  
ABBOTT, OUIDA DAVIS, and AHMANN, CHESTER F., Gainesville, U. of Fla. Bulletin 328, November, 1938.

Abbott and Ahmann, in a brochure intended primarily for the laity, call attention to the prevalence of nutritional anemia in Florida and ascribe the condition mainly to an iron deficient diet which may in turn be due to one of several factors. Among these are "the high carbohydrate diets necessitated by poverty or custom, the limitation of a small farm's products, intensive cultivation of cash crops and ignorance of food values."

Peculiarly, while the nutritional anemias may be prevented by adequate diet, yet after they have developed, diet alone is of relatively small value in their cure. Iron, as such, and preferably the inorganic salts, must be given in adequate amounts in order to reproduce normal hemoglobin levels.

## BOOKS RECEIVED

*Acknowledgment of books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.*

**THE ESSENTIALS OF APPLIED MEDICAL LABORATORY TECHNIC, WITH DETAILS OF HOW TO BUILD AND CONDUCT A LABORATORY IN HOSPITAL OR OFFICE AT SMALL COST.** By J. M. Feder, M. D., Director of Laboratories and of The Allergy Clinic, Anderson County Hospital, Anderson, S. C. In a very lucid way the author describes many economies which can be practiced by the small laboratory or the doctor who does not have access to a large laboratory without curtailing efficiency. Doctor Feder's book tells in detail how satisfactory substitutes for many costly articles of equipment may be provided for a few dollars or cents. It also offers the student technician the essential features of laboratory technic in plain terms. Fabrikoid, Pp. 234, profusely illustrated. Price \$5.00. North Carolina: Charlotte Medical Press, 1940.

**TRAPPING THE COMMON COLD.** By George S. Foster, M. D. A book written for the laity, elementary in diction and content, covering such topics as The Value of Sleep, Influence of Diet, Posture and Body Resistance, Proper Clothing. Fabrikoid, Pp. 125. Price \$1.25. New York: Fleming H. Revell Co.

**ACCEPTED FOODS AND THEIR NUTRITIONAL SIGNIFICANCE.** By Council on Foods of the American Medical Association. In this book are described the products which were on the list of accepted foods on September 1, 1939. In addition to descriptions of the products, the book provides the Council's opinion regarding many topics in the field of nutrition. It includes the rules and regulations of the Council and general decisions pertaining to food composition and nutritional claims which may appear in advertising of food products. Cloth, Pp. 492. Chicago: American Medical Association.



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THE NEWER NUTRITION IN PEDIATRIC PRACTICE. By I. Newton Kuglemass, B. S., M. A., M. D., Ph. D., Sc. D., Attending Pediatrician, Broad Street Hospital and Heckscher Institute, New York; Consulting Pediatrician, Lynn Memorial Hospital, Monmouth Memorial Hospital, and Muhlenberg Hospital, New Jersey. According to the author: "The purpose of this book is to apply the newer knowledge of nutrition to everyday practice of pediatrics. . . . Unit One on nutritional physiology reveals the physical and chemical bases of the growing organism in terms of the materials of life derived from food, air and water. . . . Unit Two on nutrition in health presents established principles and procedures for the advancement of positive health and the prevention of chronic disease. . . . Unit Three on nutrition in disease considers most of the disorders of infancy and childhood in terms of nutrient causation or involvement as a basis for nutritional therapy". Fabrikoid, Pp. 1155, with 183 illustrations. Price \$10.00. Philadelphia: J. B. Lippincott Company.

PNEUMOCONIOSIS (SILICOSIS) : THE STORY OF DUSTY LUNGS. By Lewis Gregory Cole, M. D., Director of Silicotic Research, John B. Pierce Foundation, and William Gregory Cole, M. D. This report to the John B. Pierce Foundation by its Director of Silicotic Research presents the results of a four years' study of lung dust, from a fresh point of view and describes findings which are at variance with accepted conceptions which have important medical, legal, social and economic implications. It includes chapters on Etiology (opaque and nonopaque dust flecks), Pathogenesis (dissemination of dust through the lungs—phagocytosis), Pathology (four types of morbid change), Roentgenology (correlation with four types of morbid change), Social and Economic Aspects. The Appendix includes reprints of two previously published articles by these authors: "Roentgenologic Diagnosis of Pneumoconiosis (Silicosis) and Use of Electric Eye to Determine Regional Densities" and "Dyspnea of Silicosis: What Causes It?" Cloth, Pp. 100, Appendix illustrated. Price \$1.00. New York: John B. Pierce Foundation.

TEN YEARS IN THE CONGO. By W. D. Davis, M. D. Interior Africa, to the minds of many a land of enchantment, becomes even more alluring to all who read Doctor Davis' book. Adventure, humor and tragedy, retailed in a charming and unpretentious way, make this a most readable volume. Cloth, Pp. 301. Price, \$2.50. New York: Reynal and Hitchcock, Inc.

## ADVERTISERS' NOTES

### THE OTOSCOPE, A DIAGNOSTIC AID

A 32-page booklet on the otoscope as a diagnostic aid, and the ear in modern diagnosis, illustrated by a series of colored pictures of ear drums drawn from actual cases with the sole aid of the electric otoscope, has been published by American Optical Company, Southbridge, Mass. Copies can be obtained free of charge by writing the Company direct.

As pointed out in the booklet, in view of the fact that in the majority of cases deafness and intracranial complications are due to preventable and curable affections of the ear, it follows that early recognition of otitic disorders is of paramount importance.

In the modern electric otoscope the means is provided to render otoscopic examinations simple and safe. The purpose of the optical concern's new treatise is to describe the technique of using the otoscope and to describe and illustrate a number of such ear conditions with which the user is most likely to be confronted.



"Osler at Old Blockley" a painting in oil by Dean Cornwell, was unveiled at the dedication of the Osler Memorial Building on the grounds of the Philadelphia General Hospital this past June and was later exhibited at the American Medical Association convention in New York.

The painting depicts one of Osler's outstanding contributions to medicine, namely, bringing medical students to the bedside of the patient for clinical study. In the painting Osler is shown at the side of an elderly patient on the hospital grounds. Surrounding Osler and the patient are interns who have stopped with him as they were on their way to the autopsy house to observe one of his famous post mortems. This autopsy house, now the only Osler Memorial Building in the United States, is shown in the background. This memorial was made possible by a grant from John Wyeth & Brother.

"Osler at Old Blockley" is the second painting in the series "Pioneers of American Medicine" sponsored by John Wyeth & Brother as part of a project to highlight the contributions of Americans to the advancement of medicine. "Beaumont and St. Martin" was the first painting in the series.

Colored reproductions of "Osler at Old Blockley," suitable for framing may be obtained free by addressing requests to John Wyeth & Brother, 1600 Arch Street, Philadelphia, Pa.

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**NATIONAL AUXILIARY MEETING**

The Woman's Auxiliary of the American Medical Association met in the Pennsylvania Hotel, New York City, the week of June 10. Mrs. Rollo Packard, national president, presided. Delegates from Florida were Mrs. Gordon H. Ira, Jacksonville, Mrs. L. C. Ingram, Orlando, and Mrs. C. H. Murphy, Bartow.

Dr. Morris Fishbein, editor of the American Medical Journal, was one of the guest speakers. He told of the preparations being made by the Association for national defense and asked the auxiliary to be prepared to respond when called upon.

Reports from officers of the National Auxiliary showed that 66 new units had been organized during the past year, bringing the total number of auxiliaries to 609. The membership during the year had increased from 23,003 to 24,230.

The New York State Auxiliary, hostess to the auxiliary convention, provided lavish entertainment which was enjoyed by all who attended. Our thanks are extended to them.

Mrs. C. H. Murphy,  
Bartow.

Plan to attend your District Meeting:

District "C," Daytona Beach ..... Oct. 3  
 " " "B," Lake City ..... Oct. 4  
 " " "A," Pensacola ..... Oct. 5  
 " " "D," Dunedin ..... Oct. 31  
 " " "E," Ft. Pierce ..... Nov. 1  
 " " "F," Miami ..... Nov. 2

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**OBSTETRICS**—Two Weeks' Intensive Course starting October 21st. Informal Course every week.

**OTOLARYNGOLOGY**—Two Weeks' Intensive Course starting September 9th. Informal and Personal Courses every week.

**OPHTHALMOLOGY**—Two Weeks' Intensive Course starting September 23rd. Informal Course every week.

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## STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville...	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:			
1—Northwest .....	B. A. Wilkinson, Tallahassee....	Stewart Thompson, Jacksonville...	Pensacola, Oct. 5, 1940
2—North Central .....	William S. Nichols, Lake City....	" " "	Lake City, Oct. 4, 1940
3—Northeast .....	Robt. B. McIver, Jacksonville....	" " "	Daytona Beach, Oct. 3, 1940
4—Southwest .....	W. C. McConnell, St. Petersburg	" " "	Dunedin, Oct. 31, 1940
5—South Central .....	A. M. Sample, Ft. Pierce .....	" " "	Ft. Pierce, Nov. 1, 1940
6—Southeast .....	Kenneth Phillips, Miami .....	" " "	Miami, Nov. 2, 1940
Alabama Medical Association....	Samuel A. Gordon, Marion.....	D. L. Cannon, Montgomery.....	Mobile, Ala., Apr. 15-17, 1941
Georgia Medical Assn. of.....	J. C. Patterson, Cuthbert.....	E. D. Shanks, Atlanta.....	Macon, May 13-16, 1941
Florida—			
Chapter, Am. College Phys.....	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami.....	Jacksonville, 1941
State Dental Society.....	E. B. Penn, Miami .....	E. C. Lunsford, Miami.....	St. Petersburg, Nov., 1940
Soc. of Derm. and Syph.....	Alan Brown, Jacksonville.....	Lauren M. Sompayrac, Jacksonville	Jacksonville, 1941
East Coast Medical Association	I. M. Hay, Melbourne.....	J. S. Stewart, Miami.....	Miami, 1940
State Hospital Association.....	W. L. Shackelford, W. Palm Bch.	Mr. T. F. Alexander, Jacksonville.	New Orleans, 1941
Assn. of Industrial Surgeons....	A. M. Bidwell, Tampa.....	T. H. Roberts, Lakeland.....	Jacksonville, 1941
Medical Postgraduate Course...	Turner Z. Cason, Jacksonville....	Chairman	
Soc. of Ophthal. & Otol.....	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami.....	Jacksonville, 1941
State Nurses Association.....	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Pediatric Society .....	Warren W. Quillian, Coral Gables	G. N. Leonard, Miami Beach.....	Fall, 1940
Pharmaceutical Association...	Mr. S. F. Harris, Jacksonville....	Mr. A. W. Morrison, Miami.....	
Public Health Association.....	A. B. McCreary, Jacksonville....	E. M. L'Engle, Jacksonville.....	Tampa, Dec. 5-7, 1940
Radiological Society .....	J. H. Lucinia, Miami .....	E. M. Hendricks, Ft. Lauderdale...	Jacksonville, 1941
Railway Surgeons' Association...	Leland F. Carlton, Tampa .....	W. C. Page, Cocoa.....	Jacksonville, 1941
Tuberculosis & Health Assn....	Mr. E. M. Newald, Orlando.....	Mrs. C. R. Whitaker, Eustis.....	
Catahouchee Valley Med. Assn.	Frank K. Boland, Atlanta .....	Robert B. McIver, Jacksonville...	Jacksonville, July 8-10, 1941
1st Coast Clinical Society.....	J. H. Dodson, Mobile .....	C. C. Rouse, Mobile .....	
2nd Sec., Am. Cong. Phys. Ther...	E. C. MacCordy, St. Petersburg...	Kenneth Phillips, Miami.....	Chattanooga, May, 1941
Southeastern Derm. Assn.....	Jack Jones, Atlanta .....	Howard Hailey, Atlanta.....	Atlanta, Ga., Sept. 1, 1940
Southeastern Surgical Congress...	Irvin Abell, Louisville .....	B. T. Beasley, Atlanta.....	Richmond, Va., Mar., 1941
Southern Medical Association...	Arthur T. McCormack, Louisville	Mr. C. P. Lorz, Birmingham.....	Louisville, Ky., Nov. 12-15, 1940
Wannsee River Medical Society...	T. H. Bates, Lake City.....	H. S. Howell, Lake City.....	

## COMPONENT SOCIETIES BY DISTRICTS

COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
				Total	Paid	
Bay	Amsie H. Lisenby, M.D. Panama City	William C. Roberts, M.D. Panama City		11	100%	A-1-'42 W. C. Roberts, M.D. Panama City
Escambia <i>*Santa Rosa</i>	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1465 Pensacola	2nd Tuesday 8:00 P. M.	43	38	Northwest District (A) Pensacola Oct. 5, 1940
Walton-Okaloosa	A. G. Williams, M.D. Lakewood	E. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		8	7	
Franklin-Gulf	Thos. Meriwether, M.D. Wewahitchka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7	100%	
Jackson <i>*Calhoun</i>	W. R. Wandee, M.D. Marianne	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	12	9	A-2-'41 B. A. Wilkinson, M.D. Tallahassee
Leon-Gadsden-Liberty Wakulla-Jefferson	Francis T. Holland, M.D. 208 Midyette-Moor Bldg. Tallahassee	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	40	38	
Columbia <i>*Baker, Hamilton</i>	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	14	8	B-3-'41 W. S. Nichols, M.D. Lake City
Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		9	5	
Taylor <i>*Dixie, Lafayette</i>	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	7	6	
Alachua <i>*Bradford, Gilchrist Union</i>	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30	22	B-4-'42 J. L. Summerlin, M.D. Gainesville
Marion <i>*Levy</i>	Henry O. Dozier, M.D. 9 No. Magnolia St. Ocala	R. C. Cumming, M.D. Commercial Bank Bldg. Ocala	3rd Thursday 12:30 P. M.	24	100%	
Pasco-Hernando- Citrus	Wm. H. Walters, Jr., M.D. Lacoochee	G. R. Creechmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	100%	North Central District (B) Lake City Oct. 4, 1940
Duval <i>*Clay, Nassau</i>	Chas. B. Mabry, M.D. 439 St. James Bldg. Jacksonville	Lauren M. Sompayrac, M.D. 439 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	179	178	C-5-'41 R. B. McIver, M.D. Jacksonville
St. Johns	Donald T. Benkin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10	9	N. E. District (C) Daytona Beach Oct. 3, 1940
Putnam	G. M. Zeagler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	12	10	C-6-'42 Maximilian Stern, M.D. Daytona Beach
Volusia <i>*Flagler</i>	L. V. L. Brown, M.D. DeLand	R. L. Miller, M.D. 258½ S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	43	35	
Hillsborough	John R. Boling, M.D. 1207 First Nat. Bk. Bldg. Tampa	James S. Grabie, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	113	102	D-7-'41 W. C. McConnell, M.D. St. Petersburg
Manatee	M. M. Harrison, M.D. Professional Bldg. Bradenton	W. E. Wentzel, M.D. Box 245 Bradenton	3rd Tuesday 7:00 P. M.	14	100%	
Pinellas	John A. Herring, M.D. 239 Third St., No. St. Petersburg	W. C. McConnell, M.D. 313 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	105	100%	Southwest District (D) Dunedin Oct. 31, 1940
Sarasota	Millard B. White, M.D. 151 S. Pineapple Ave. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	16	11	
DeSoto-Herde- Highlands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	100%	D-8-'42 H. V. Weems, M.D. Sebring
Lee <i>*Collier, Hendry</i>	A. S. Byle, M.D. 311 2nd St. Fort Myers	Fred D. Bartleson, M.D. Fort Myers	3rd Friday 7:30 P. M.	14	100%	
Polk	Henry Fuller, M.D. Mulberry	Jere W. Annis, M.D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62	59	
Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Tuesday	11	10	E-9-'42 J. R. Chappell, M.D. Orlando
Lake <i>*Sumter</i>	W. L. Ashton, M.D. Umatilla	Oliver Emerson, M.D. Tavares	1st Thursday 12:30 P. M.	18	13	
Orange <i>*Osceola</i>	Chas. J. Collins, M.D. 209 Exchange Bldg. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	84	83	
Seminole	Wade H. Garner, M.D. Sanford	Douglas G. Scott, M.D. 212 N. Park Ave. Sanford	2nd Monday 7:00 P. M.	13	100%	South Central District (E) Ft. Pierce Nov. 1, 1940
St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	19	100%	E-10-'41 A. M. Sample, M.D. Ft. Pierce
Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	38	100%	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
Palm Beach	James H. Pittman, M.D. Box 602 W. Palm Beach	C. Jennings Derrick, M.D. Box 574 W. Palm Beach	4th Monday 8:00 P. M.	64	100%	
Dade	Joseph S. Stewart, M.D. 525 duPont Bldg. Miami	Franz Stewart, M.D. 525 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	309	244	F-12-'41 Kenneth Phillips, M.D. Miami
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## CONTENTS

Infection of the Nasal Accessory Sinuses in Children Warren W. Quillian, M. D., Coral Gables	127
Otologic Progress M. A. Lischkoff, M. D., Pensacola	130
Water Metabolism Edwin P. Preston, M. D., Miami Beach	133
Isolated Myocarditis E. C. Chamberlain, M. D., Fort Lauderdale	137
Inguinal Hernia; An Analysis of 204 Operations Don C. Robertson, M. D., Orlando	140
Kidney Infections as a Result of Obstruction Clyde F. Bowie, M. D., Leesburg	144
Venereal Disease Control G. F. Highsmith, M. D., Arcadia	147
Editorials: Another Reason for the Need of a Medical Coordinator; Medical Preparedness Questionnaire Returned by Almost 80,000	150
Births and Marriages	151
State News Items	151
Component County Societies	151
Abstract Department	152
Books Received	152
Advertisers' Notes	154
Woman's Auxiliary	154
State and Sectional Meetings	161
Component Societies by Districts	162

## NEXT SESSIONS

American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
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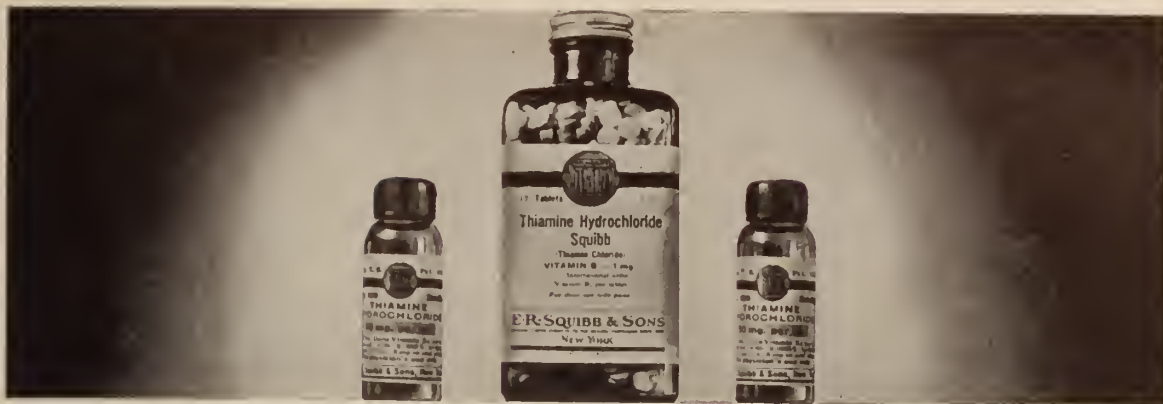
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Casal's collar in a patient with advanced pellagra secondary to chronic alcoholism.

Illustration courtesy of Virgil P. W. Sydenstricker, M.D., University of Georgia Medical School, Augusta.

The scaling symmetrical pellagrous dermatitis of the hands.



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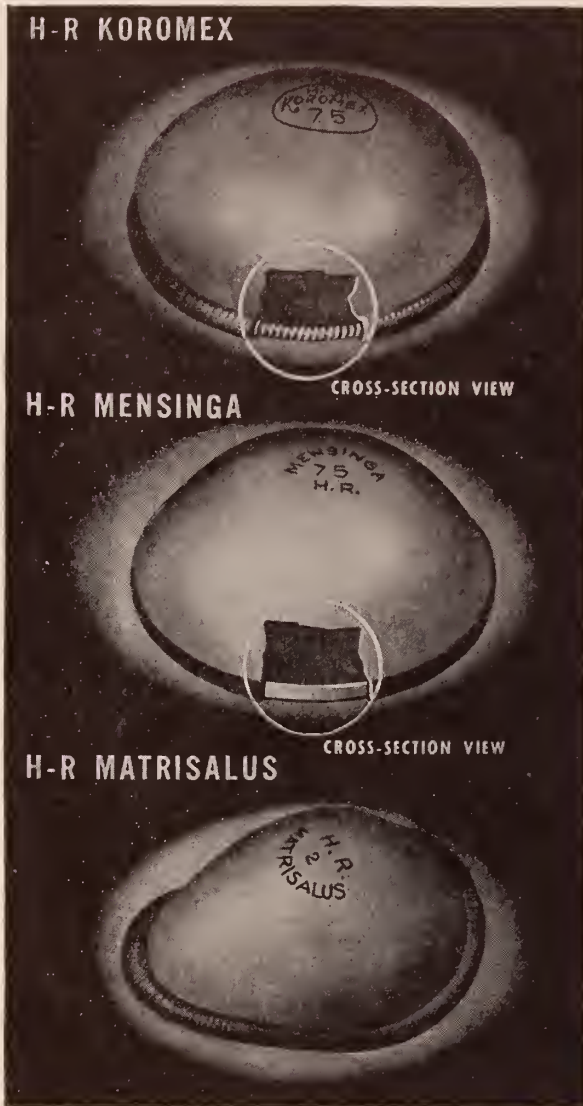
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## INFECTION OF THE NASAL ACCESSORY SINUSES IN CHILDREN

WARREN W. QUILLIAN, M. D.  
Coral Gables

During a recent study of private and hospital records<sup>1</sup> it was observed that a large percentage, (approximately 45 per cent of 3,743 cases), of pediatric practice in Florida is concerned with respiratory infections. While the occurrence of complications varies with the type and virulence of the causative organism, the incidence of sinusitis is surprisingly high in this series, being 6 per cent of 560 cases in the original groups of patients seen in office and home. The lower coastal region of Florida, with its subtropical environment, lures many sufferers with chronic or recurrent colds who are seeking relief with the help of our equable climate. Thus, there is found here a concentration of sinus sufferers from all parts of the country during the winter season.

Ebbs<sup>2</sup> examined the sinuses in a consecutive series of 496 autopsies made in children of all ages from birth to fourteen years, who had died from a great variety of medical and surgical conditions. Of the 496 children examined 152 had purulent infection of one or more sinuses. He found that 30.6 per cent of children of all ages who had died in a large hospital for children showed evidence of sinusitis at autopsy.

In a systematic study of autopsy material at the Empress Friedrich Pediatric Clinic of Berlin during 1936 Schönberg<sup>3</sup> discovered that diseases of the sinuses occur frequently in nurslings and that many of these children show marked nutritional disturbances.

### PREDISPOSING FACTORS

Predisposition to infections of any portion of the respiratory tract depends upon the balance between the virulence of the infecting organism and the immunologic response of the patient. General hygiene, housing conditions, climate, vitamin deficiencies, endocrine imbalance, allergy and other similar factors play an import-

ant role. Any local condition of the mucous membranes which interferes with the normal action of the ciliated epithelium may predispose to infection. The type of organism found varies widely, and depends somewhat upon the bacterial flora encountered by children in their daily contacts.<sup>4</sup> The role of swimming with attendant chilling of the body surface has been emphasized by Taylor<sup>5</sup> as an important predisposing cause of paranasal sinus infection.

### SYMPTOMS AND DIAGNOSIS

Recurrent nasal discharge, localized head pains, sore throat, chronic postnasal drip or cough, frequent head colds or nasal obstruction, asthmatic patients with negative skin tests or allergic individuals with extra-seasonal nasal complaints, periodic run-down states—all of these conditions should make the clinician suspect sinusitis. A low grade subfebrile temperature and failure of the child to thrive properly may be the first suggestive clues to a definite pathologic condition of the sinuses.

The history obtained is of considerable importance. Familial tendencies, allergic or endocrine disturbances may play a part in the clinical picture. The character, duration and amount of nasal discharge is helpful information. There is no substitute for a careful physical examination. Edema of the middle turbinates may interfere with adequate ventilation and drainage of the anterior ethmoidal cells, maxillary antra or frontal sinuses in older children. Pus in the region of the midportion of the inferior turbinates may indicate involvement of the maxillary or anterior ethmoids or both. Pus at the posterior portion of the middle turbinates suggests the possibility of infection in the posterior ethmoid or sphenoid cells. Nasal secretions should be examined to determine the character of cells and type of organisms present. In allergic rhinitis there is often a predominance of eosinophils; while an abundance of polymorphonuclear neutrophils usually means infection.<sup>6</sup> Conclusions will be more accurate if based upon microscopic examination of a series of intranasal smears and a correlation of findings.

The chief value of a roentgenologic study is the definite information obtainable concerning the presence, growth and clinical significance

<sup>1</sup>Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940.

of the sinus which is suspected of being diseased. A blurred sinus plus pus in the nares and a suggestive clinical history with cervical adenopathy constitute presumptive evidence of a pathologic condition of the sinus until proved otherwise. But cloudiness of the sinuses in allergic children does not necessarily mean infection. The use of lipiodol or other radiopaque media may materially improve the value and significance of sinus roentgenograms. Technical difficulties render their use in uncooperative or very young children impractical except by a well-trained rhinologist. Transillumination has proved very unsatisfactory and misleading as a diagnostic procedure in children.

#### COMPLICATIONS

Dushan<sup>10</sup> enables us to visualize better the complications of paranasal sinusitis by classifying them into two groups. The descending group consists of those which involve the respiratory and the gastrointestinal tracts. The ascending group affects the central nervous system. Cerebral complications such as meningitis or abscess occur because of a direct communication between the veins and lymphatics of the nasal mucosa and the dura. Constant postnasal catarrh may cause pharyngitis or infections of the lower respiratory tract, while repeated swallowing of infected secretions from the sinuses may easily cause gastric disturbances or complications in the lower digestive tract.

#### TREATMENT

Small children and infants cannot remove their own nasopharyngeal secretions. Therefore, the use of suction provides an effective method for prevention of the obstruction which predisposes toward blockage of the natural ostia in an acute exacerbation of a chronic sinusitis or during an attack of acute sinusitis. This procedure also helps in checking an extension of the inflammatory process through the eustachian tubes with development of an otitis media.

Local treatment includes the use of ephedrine solutions in an effort to shrink the turbinates and to open the ostia of the sinuses. Indiscriminate use of harsh or irritating solutions in the nose may result in definite damage to the mucous membranes and serve to perpetuate the disease for the relief of which the medication was intended. Good results demand clinical judgment as well as a full appreciation of the physi-

ology and pathology of the affected parts. The prime requisite is the establishment of adequate ventilation and drainage.

Any treatment of chronic sinusitis must include an adequate program for the relief of malnutrition, fatigue, anemia and associated clinical states due to the presence of the chronic infection in the sinuses. Local therapy will fail unless this fact is appreciated by the physician. Logical treatment lies in the relief from obstruction to the normal ciliary action of the mucosa. If this obstruction is due to allergy, appropriate treatment can be instituted only when complete diagnosis has been made and the offending allergenic factors eliminated. Bony obstruction may require surgical intervention. But, in childhood, prevention is more satisfactory than eradication. Attention to proper nutrition of the growing child, adequate prenatal care and prevention of rachitic deformities in the small child during early years of rapid growth provide an important field for prevention of sinusitis later.<sup>7</sup>

Medicinal therapy is almost entirely symptomatic and consists of antispasmodics, analgesics, alteratives or expectorants. Shea<sup>8</sup> advises the administration of calcium, thyroid and parathyroid in combination as an effort to control the size of hypertrophied lymphoid tissue. Roentgen therapy has been used by McLendon<sup>9</sup> and others for the same purpose with excellent results. Stock antigens or vaccines have been disappointing in my experience, but autogenous vaccines made from the child's nasopharyngeal secretions have often seemed of value in the accomplishment of an improved immunologic response.

The diet should be rich in vitamins and minerals. This is of particular importance to the allergic patient who very often requires rigid dietary restrictions. Change of climate appears to be beneficial in some instances, the important factor being freedom from sudden changes of temperature or excessive rainfall.

#### SUMMARY

1. Infection of the paranasal accessory sinuses in children is not uncommon.
2. All children with chronic or recurrent colds should have a careful investigation of the sinuses.
3. Diagnosis depends upon intelligent interpretation of information obtained from a



careful history, physical examination, x-ray and bacteriologic studies.

4. Neglected early treatment may predispose toward serious complications with profound effects upon growth and development.

5. Treatment of sinusitis in children demands careful consideration of etiologic factors. Conservative measures give gratifying results.

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#### DISCUSSION

*Dr. D. D. Martin, Tampa:*

Doctor Quillian has presented a paper on a subject in which all of us are interested, directly or indirectly. I am sure that we all enjoyed this paper which was presented in a masterly manner by a keen student of childhood diseases.

The more I see of sinus diseases the more firmly I am convinced that aeration and cleansing by suction of the upper respiratory passages is the method of choice in the treatment of sinus infection in children. Irritating drops instilled in the nose have only a dilatory effect. X-ray therapy has been very useful in a number of cases that I have seen but as to whether the effects are lasting we have yet to see. Many of these children have apparently been definitely benefited.

Supportive treatment plays an important part in these cases. We should never start any type of treatment in sinus infection until the definite, distinct type of infection has been determined. We can never expect allergy to respond to treatment that is instituted for a true sinus infection. The climate no doubt plays an important part in a large percentage of sinus infections but certainly other supportive measures and appropriate treatment must be used.

I thoroughly agree with Doctor Quillian that aeration and suction in the true type of infection, and finding the offending factor in allergy, seem the proper approach to these cases.

I think we all agree that the duration of sinus disease is shorter in our section of the country than elsewhere and that we see few sinus infections originating in our subtropical environment.

*Dr. C. E. Dumaway, Miami:*

It is interesting to note the number of cases of sinusitis discovered upon autopsy. Sinusitis in children is often silent and not recognized unless seen by an otolaryngologist. Acute sinusitis is responsible for a large number of cases of bronchitis seen in children. The child is usually examined first by the pediatrician or general practitioner and a history obtained of coryza, cough, fever and the usual manifestations of grippe, which instead of clearing up in a few days with treatment, continues in spite of all treatment rendered. The child may show a few patchy areas of consolidation, yet the underlying condition is silent sinusitis. When this is cleared up the child rapidly returns to normal. If the condition is not eliminated, the child may develop some structural changes such as bronchiectasis. Children may develop sinusitis from infection of the lower respiratory tract from coughing of purulent sputum which is constantly sprayed into the nasopharynx and nose. Lung abscesses are frequently due to sinusitis, as is otitis media, and this condition is not found unless looked for.

In regard to diagnosis of sinusitis, Doctor Quillian has covered this very nicely. My only thought is that an examination of the sinuses by the attending physician or a competent otolaryngologist should never be omitted whenever a child presents symptoms of a cold, disease of the respiratory tract, or otitis media.

A good history from the mother should be obtained. Roentgenologic studies of the sinuses are quite helpful. However, I do feel that roentgenograms alone should not be relied upon. Clinical signs are more important. Roentgenologic reports frequently state that there is no pus in the sinuses but later, upon aspiration, a large amount of pus is removed. Transillumination, correctly done, has some value, in my opinion, although many condemn it. The allergic individual will frequently show the same picture, upon roentgenography, as the patient with sinusitis.

In the way of prophylaxis, we can avoid swimming, as suggested by Taylor. I think every mother should be cautioned of the possibilities of sinus infection and ear diseases if the child is permitted this form of recreation. The child's resistance should be kept at par, if possible. Frequently these children are anemic and I feel that complete blood examinations will often assist us. Any anatomical deformity should be corrected, if possible, if it interferes with aeration and drainage of the sinuses.

The treatment of sinusitis remains the same as of old—aeration and drainage. In my practice I usually shrink the nasal mucous membranes with a very weak solution of ephedrine. Suction is used in each case of purulent sinusitis. The mother is instructed to use a weak solution of ephedrine at home and postural drainage. I do not use adrenalin in young children as many of them are allergic to this drug. Infra-red ray and diathermy are used frequently to relieve pain. Many use x-ray therapy in the treatment of sinusitis with seemingly good results. In acute cases of sinusitis, in my opinion, aspiration should not be used; aspiration is used only after the acute symptoms have subsided. The displacement method of Proetz is very useful in older children.

*Dr. R. L. Cline, Lakeland:*

Because the conventional idea of allergy is anything but clear Dr. James Adams of Glasgow, Scotland, said until the profession has dispelled this allergic fog there is no hope for it to learn the true nature of allergy.

Allergy is only one of the many symptoms of a syndrome. That syndrome embraces allergy, angioneurotic edema, turgescence rhinitis, urticaria, eczema, sneeze, cough, wheeze, eosinophilia and the like.

The profession speaks of allergy as an etiologic factor of sinus disease, turgescence rhinitis, hay fever, asthma, eczema, urticaria and food sensitizations. The fact is, allergy is only one of the many symptoms of the syndrome which follows a systemic upset, toxicosis from whatever

cause and is often due to endocrine imbalance. In overcoming the endocrine imbalance and the other systemic conditions the allergia together with all the above named symptoms disappear simultaneously.

Allergy does not produce sinus disease; on the contrary, sinus and other systemic diseases produce the allergic condition.

*Dr. Wm. E. Quicksall, St. Petersburg:*

When an intern in St. Joseph's Hospital, Philadelphia, in 1898-1899, I saw many cases of sinusitis in badly fed, under-privileged children sent to us from the great Will's Eye Hospital, nearby.

These children came to us with profuse acrid nasal discharge, excoriating the upper lip all the way down to the margin of the mucous membrane, with marked blepharitis, and a photophobia so severe as to make it difficult to keep their eyes more than half open.

They were sprayed with a 3 per cent silver nitrate solution, using a hard rubber atomizer throwing a very fine spray, free from drops. It was found that this was of the greatest importance to avoid after pain and irritation. These children did not seem to suffer in the least from silver of this strength, while no adult can stand it without agony for from 12 to 24 hours.

The results were remarkable. It was amazing to see how soon they would come in to the clinic with their eyes wide open, and clear, and the excoriation gone from the upper lip.

*Dr. Warren W. Quillian (Concluding):*

I wish to thank these gentlemen for their generous discussion.

In connection with Doctor Dunaway's remarks, I regret that time does not permit a demonstration of these slides of Dr. Wasson. They would illustrate his point very clearly. Frequently roentgenologic examinations show very definitely that recurrent respiratory infections and repeated attacks of bronchopneumonia are associated with sinus infections.

May I conclude by summarizing the points that have been emphasized in this paper:

First, that sinusitis is not an uncommon disease in children.

Second, that conservative treatment usually brings relief and that it is not necessary to resort to severe surgical procedures in most instances.

Third, that all children with chronic or recurrent colds should have a careful examination of the sinuses. Diagnosis depends upon intelligent correlation of the information obtained from careful history, physical examination, roentgenologic and bacterial studies.

Fourth, neglected early treatment may predispose toward serious complications with consequent effect upon growth and development.

## IMPLANTS FROM LINING OF WOMB

Two women complaining of what they thought was "stomach trouble" were found to have obstructions of the small intestine caused by a growth of an escaped portion of the mucous membrane lining the womb. Paul M. Glenn, M. D., and John J. Thornton, M. D., Cleveland, report in *The Journal of the American Medical Association* for Aug. 17.

The escape of a portion of the mucous membrane lining of the womb from its normal location and its adhesion to and growth on some other organ of the abdomen is known as endometriosis and is not an uncommon condition. Just how this condition arises has not been determined.

## OTOLOGIC PROGRESS

M. A. LISCHKOFF, M. D.  
Pensacola

The general practitioner is keenly interested in deafness from various etiologic sources, but his personal experience, in non-suppurative cases, is limited. He is the first to see earache and to recognize its extension and need for specialized treatment. He becomes the consultant and sympathetic adviser throughout the mastoid complications. His cooperation in progressive deafness would be greater were he familiar with the progress of otology. That is my reason for presenting the subject of deafness to an audience composed mostly of general practitioners and surgeons.

The treatment of deafness to some of you might mean inflation and oily nasal sprays; others may be familiar with massage and galvanism; but few realize that a grossly normal looking drum membrane may be seen in a variety of types of deafness. The appearance of the tympanic membrane is no guide to hearing acuity; many chronic suppurative otitis media cases with large perforations have little or no hearing impairment.

The magnitude of the subject makes it impossible even to skim its surface in the few minutes allotted, so I shall be content with mentioning a few conditions. According to Crowe<sup>1</sup> there are three common types of impairment of hearing: the type due to a lesion of the conductive apparatus which interferes with the transmission of sound to the cochlea; that due to a lesion in Corti's organ, or the cochlear nerve which interferes with the perception of sound; and a combined conductive and perceptive deafness. It is possible to have impaired hearing due to a nuclear or auditory pathway lesion but this is very rare. To cause deafness a tumor of the brain or other type of central lesion must be extensive enough to involve the auditory pathways on both sides (except in a cerebellopontile angle lesion).

The three conditions in the middle ear that impair hearing are eustachian tube obstruction, lesions that interfere with the movements

<sup>1</sup>Read before the Escambia County Medical Society, February 13, 1940.



of the ossicles, and fixation of the stapes due to otosclerosis.

In the past we were content to make our diagnosis with the tuning fork. Then came the audiometer and now one would not feel that a test had been complete without both the audiometer and tuning fork. The only way to make a differential diagnosis is to get a detailed history, examine the upper respiratory tract, the tympanic membrane, and eustachian tubes, and use masking when making hearing tests.

Progress in other fields of science are reflected in new conditions being observed such as aviation, which has added new phases to ear diseases. Aero-otitis was recently defined as an acute or chronic traumatic inflammation of the middle ear caused by pressure difference between the air in the tympanic cavity and that of the surrounding atmosphere commonly occurring during changes of altitude in airplane flights and characterized by inflammation, discomfort, pain, tinnitus, and deafness. Lovelace, Mayo and Boothby<sup>2</sup> believe it to be a middle ear condition caused by the lack of ventilation of the middle ear during sudden changes in atmospheric pressure, severe enough to traumatize the tympanic cavity.

Chronic aero-otitis is characterized by partial deafness, fullness of the ears, and head noises. It is aggravated by flying and during acute infections of the upper respiratory tract. On commercial transportation planes, passengers are now warned to ventilate the ears by chewing gum. Armstrong and Heim suggest swallowing, yawning, singing, autoinflation of the eustachian tube and contraction of the salpingopharyngeal muscles as means of preventing aero-otitis, stimulating the parasympathetic.

The treatment of deafness and tinnitus with prostigmin and use of thyroxin are recent popular therapeutic additions to a voluminous armamentarium.

Gray<sup>3</sup> noticed temporary improvement in hearing after sudden changes in ear circulation and he called this phenomena otosclerosis-paradoxa. Associated is the fact that a similar improvement occurs in many cases on the inhalation of amyl nitrate, appearing to indicate some defect in the vasomotor system

of the organ of hearing as being the essential factor in the causation of the disease.

As a result of his clinical observations of the effect of the local application of the thyroxin to the mucous membrane of the nose, he was led to try its effect upon the ear in otosclerosis. His method consists of the injection of a fine suspension of thyroxin into the tympanic cavity by means of a hypodermic syringe and a long fine needle. In seven of his fourteen cases, he noted satisfactory improvement. It is only applicable in patients under 40 years of age and of no value after 50. There were no controls in his experiments.

The subsequent report of his associates who followed up his work did not confirm his results. Goldstein<sup>4</sup> seems to think that a specialized technique is necessary and few are familiar with it. Rainisch<sup>5</sup> noted that otosclerotic individuals had increased deafness when under the influence of epinephrine and improvement upon the use of pilocarpine. Mortimer and Wright,<sup>6</sup> while observing the use of estrogenic substance in atrophic rhinitis, found that they could improve hearing in certain cases by the local application and hypodermic injection of this substance. They feel that there may be a hitherto unrecognized "oto-genital" relationship which may play a part in the physiology of hearing.

Davis and Rommel<sup>7</sup> advocate the hypodermic injection of prostigmin methylsulfate. This bids to be one of the few new worthwhile remedies. Many patients are quickly relieved of their tinnitus, and improvement in hearing can be demonstrated audiometrically in most instances. The relief obtained is frequently immediate and lasting. Those with acute conditions usually get well with restoration of hearing after five treatments or even less.

Desjardins reported favorably influencing otosclerosis with roentgen rays. Others think allergy a frequent cause of deafness. There are undoubtedly many cases of allergic sensitivity. The ill effect of drugs and allergy on hearing is again being revived because of the widespread use of "harmless" cold tablets that contain aspirin, quinine, etc. Many patients complain of fullness or tinnitus after taking only one aspirin tablet. Quinine deaf-



ness appears to be more or less permanent, as no remedy has been brought forth to influence the unfavorable prognosis.

Taylor's<sup>8</sup> recent observations on body chilling in water changed the viewpoint on the relation of diving and swimming to sinus and ear disease. It is now believed that ear infection is not in proportion to water contamination. My own investigation showed that otitis media occurred as frequently in waters that had active currents as those that carried higher bacteria count and less current. The reason for fewer ear complications in surf bathing is due to the comparatively little swimming one does in the gulf or ocean.

Although very little has been written about the improvement in hearing after hyperthermia, my own observations make it appear to be temporary. It would seem to be more of a general improvement with increased hearing acuity from a temporary improvement in nutrition due to circulatory stimulation. Local diathermy in the form of reflected heat is a most useful aid to ear circulation.

The physician today is much interested in the testing of hearing in school children. Audiometric examinations have revealed hearing defects in more than five per cent of school children examined. Three million of the fifty million pupils enrolled in the public school systems of the United States have imperfect hearing and four million have demonstrable speech defects. These defects range from slight to serious handicaps. Fourteen per cent is a large percentage of future citizens to grow up with such handicaps. Many repeaters are found to be hard of hearing. It has been brought out that many children with speech defects are deaf, or partially so. Certain stammerers have islands of deafness corresponding to the speech defect.

Many patients suffering from deafness have made the rounds of doctors and specialists, and in spite of good, bad, or indifferent treatment, grow progressively worse. They were willing to have anything done in an effort to hear again, and so the problem has been approached surgically with some success. Holmgren, Sourdille, Dixon, Campbell, Lempert, and others have devised surgical procedures. All except Dixon attempted to establish fistulas of the semicircular canals

and eventually to fill the saccus endolymphaticus. By the latter procedure decompression of the endolymph is obtained with improved hearing.

Newhart and Hartig<sup>9</sup> state:

Our responsibility to the deaf does not cease after unsuccessful treatment or surgery. Even if operation is not indicated or wanted and previous treatment is of no avail, the otologist must continue to be interested, sympathetic, and helpful.

He should not merely suggest lip reading or mechanical aids, but should be well informed about both, and assist his patient in obtaining the best hearing aid available. It is just as much the otologist's duty to prescribe a correct hearing aid as it is for an ophthalmologist to prescribe correct glasses.

The hearing aid of today is not the old crude carbon microphone full of distortions, but a compact vacuum tube with crystal or condenser microphone that is comparatively free from distortions. It is fitted on information obtained from an audiogram, for both air and bone conduction. From this audiogram, the proper degree of amplification at different frequencies can be prescribed.

Even after the hearing aid has been procured by the patient, the otologist's aid is necessary. Patients don't just wear hearing aids; they have to go through a period of education, learn to hear again and learn how to hear. No other orthopedic appliance is given to a patient without detailed advice through the adjustment period, and the deaf patient is no exception. As a matter of fact, his psychology makes him sensitive about his handicap and frequently he resents being considered deaf. A blind patient will confidently follow a dog through fire, but a deaf patient is suspicious of all our efforts. Few mental cases require more sympathetic cooperation than progressive deafness.

Pinter concluded that in school children those with hearing defects are decidedly more neurotic, more introverted, more submissive. The White House Conference Report on Child Health states:

Persons deprived of normal hearing tend to become socially maladjusted, to develop more or less serious psychopathic attitudes. They live in a world more or less isolated from that of their fellows.

As we review this interesting subject, may we leave here with the thought that progress in otology cannot be measured by the amount of hearing improvement obtained in the av-

erage treatment even in the most skilled hands.

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*Jo J Blount Bldg.*

### WATER METABOLISM

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Miami Beach

Water is by far the largest single constituent of the body. When the total amount of it is altered, either by adding or withdrawing fluid through the blood stream, all tissues are not equally affected.

Skelton showed that in animals having no fluid for thirty-two hours the skin was the most important source of fluid for the blood. The next source was muscle tissue. In normal animals injections of hypotonic sodium chloride is absorbed by muscle and liver. In hypertonic sodium chloride the solution goes mainly to the skin. After very severe hemorrhage the blood becomes more watery at the expense of both muscle and skin. The conclusion from this work is that the water content of the blood is maintained at the expense of the fluid content of muscle and skin.

To serve as a fluid reservoir an organ must contain a large amount of loose connective tissue. The skin and muscles each contain a large amount and in addition contain large

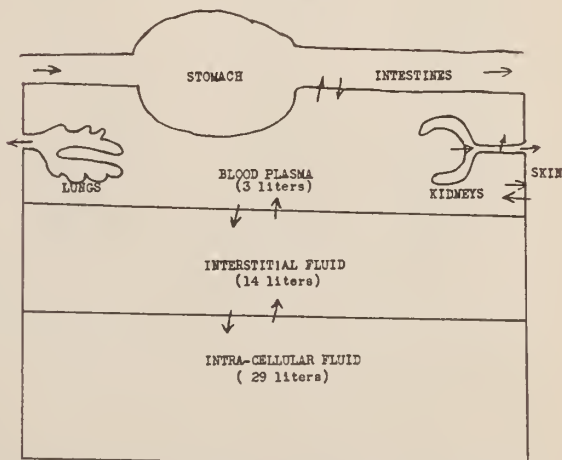
intercellular spaces. You have just heard how they take in and give up water. Parenchymatous organs show no appreciable loss of water even in severe dehydration. This leads to the conclusion that the intercellular spaces act as a reservoir for sustaining blood plasma volume. The very constancy of blood plasma volume, despite great variations in intake and output presupposes the existence of some storage place for excess and supply as needed.

Approaching the problem from this angle we consider the body water as divided into three fluid compartments: first, the vascular system, through which fluid is being rapidly circulated under pressure maintained by the action of the heart; second, the intracellular fluid in which living processes occur; and lastly, separating these two is the intercellular or interstitial fluid which surrounds the cells and constitutes the internal environment of the organism.

Since fluid passes in and out of the body only through the plasma compartment, the interstitial and intracellular compartments depend entirely upon the plasma for their supply.

If the interstitial fluid is to change in content and volume as need occurs then there must of necessity be effective communication between blood and tissue fluid. This exchange occurs through the endothelial membrane of the capillaries. There must be effective communication between the fluid bathing the cell and the cell itself. This occurs through the cell membrane.

TABLE No. 1



Diagrammatic illustration of the three fluid compartments. (Modified from Gamble; *Bull. Johns Hopkins Hosp.* **61**: 151, 1937).

COMPOSITION OF COMPARTMENTS

Except for the difference in protein content the plasma and interstitial fluids are practically identical. The barrier between these compartments (the endothelial wall) is therefore permeable to all except protein which causes a slightly higher chloride and lower sodium concentration in the interstitial fluid. Sodium is the important base in these two.

The barrier between interstitial and intracellular compartments (the cell membrane) is very different. It is endowed with a high degree of selective impermeability. Here potassium is the predominant base. Chemically then it differs greatly from the other compartments. In spite of this the total ionic concentration is the same for all three compartments. This must be so since water moves freely across the intervening barriers. If the base concentration is not constant a rapid shift of water occurs to combat it. This is without regard to cell health. If intracellular base is more concentrated then extracellular base fluid flows through the cell membrane until equilibrium is maintained, even if the cell bursts. If the concentrations are reversed fluid flows out of the cell into base fluid, even if it is crenated in doing so.

TABLE No. 2

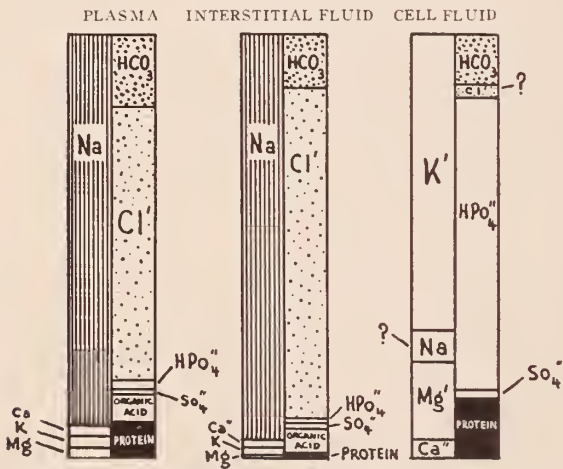


Diagram showing the chief chemical constituents of the three fluid compartments. The height of the left half of each column indicates the total concentration of cations; that of right half, the concentration anions. (Modified from Gamble; Bull. Johns Hopkins Hosp. 61: 151, 1937).

VOLUME OF THE COMPARTMENTS

The vascular is the smallest but the most important of the three. It links internal and external environments; the sole channel of ex-

change for all substances reaching and leaving the cells. To do this effectively the plasma must maintain its volume as well as its composition. The volume through its effect on capillary pressure determines the direction of fluid exchange between plasma and tissue fluid. The persistence of constant volume of plasma indicates that any change of volume sets in operation the mechanism for its regulation. The average volume is 45 cc. per kilogram. An average man would have about three thousand cubic centimeters.

The interstitial fluid volume is roughly 20 per cent of the body weight; it would equal 14 liters. Intracellular compartment volume is roughly 29 liters for the same man.

Water balance then presents two aspects: (1) exchange between plasma and outside; (2) exchange between plasma and inside.

EXCHANGE BETWEEN PLASMA AND OUTSIDE INTAKE

Fluid taken by mouth is absorbed from the lumen of the gut. This is preceded by the establishment of osmotic equilibrium between fluid and blood. The rate of absorption depends on the concentration of the ingested fluid. Hypertonic solutions retard absorption by initial diffusion of water from the blood. The rate of absorption also depends on the diffusibility of the dissolved substances.

Large quantities of fluid are then secreted into mouth, stomach, and intestine in course of digestion. This is reabsorbed as digestion proceeds. This amount is between 3 and 10 liters daily. It is larger than the plasma volume (3 liters). Visualize then the effect of continued loss of digestive secretions occurring in persistent vomiting or diarrhea.

REGULATION OF WATER INTAKE

The fluid intake varies widely. The average is between 2,200 and 4,500 cc. In India 13 liters per day is often taken. The sensation of thirst indicates the need for increasing the water content and as such has great practical significance.

Concurrent changes in salivary flow and plasma volume may be seen after water deprivation, after ingestion of a large meal taken without water, after profuse sweating, etc. correlation in these and other experiments indicate the dependence of thirst upon a re-



duction in the fluid volume of the blood. It is especially well illustrated in hemorrhage. A patient was bled 500 cc. in five minutes. There was a small temporary fall in blood pressure indicating an effective compensatory vasoconstrictor mechanism, but the salivary flow immediately fell to one-fifth of its previous level and did not return for one hour (presumably the time required for restoration of fluid volume of the blood.) The conclusion then is that the decrease in plasma volume is significant in the mechanism of thirst which signals the need for an increase in water intake.

A dry mouth, then, is an important physical sign of a lowered blood volume. A patient with a dry mouth is a poor surgical risk and cannot withstand hemorrhage as well as a patient whose tongue is moist and glistening.

#### DEHYDRATION

This is frequently an important clinical problem. In diarrheas large quantities of water are lost. Vomiting also depletes the supply rapidly.

Some tissues depend more than others on their water supply. Muscle and skin can lose a very large proportion without permanent damage to themselves or the organism. This is not true for the blood. Dehydration causes an increase in viscosity in the blood. Circulation through the tissues is impaired and the blood tends to stagnate in the capillaries; in extreme dehydration the blood may become so viscous that there is no bleeding from deep cuts.

#### ELIMINATION OF FLUID

Water loss through the kidneys is dependent on many factors,—chiefly the available supply. In the tropics it may be reduced to a minimum in which the greater part of 10 to 12 liters of water drunk daily is lost through the skin. Here also a considerable amount of sodium chloride is excreted by the sweat glands, thus reducing the water volume required by the kidney for excretion of salt.

As water intake is normally in excess of bodily needs the kidneys usually function as a spillway for water not dissipated through extra-renal channels. If the supply is meager it excretes salts and waste products in high concentration. It is now thought that its output is adjusted to the loss through other

channels by the pituitary gland. A damaged kidney is often unable to restrain albumin loss and fails in ability to concentrate. This results in a loss of body water to carry out solute. The loss through the feces is negligible except in diarrheas. Loss through the skin is partly insensible cutaneous loss and partly visible secretion of sweat. The insensible cutaneous loss and respiratory loss go on continuously and at a fairly constant rate.

#### WATER INTOXICATION

Ingestion of large quantities of water causes no harmful effects if the kidney is normal. With impaired renal function it may cause headache, dizziness, vomiting and cramps, increase in weight, and an increase in blood pressure. This is termed water intoxication. It can be readily produced by giving water with injections of posterior pituitary extract. This inhibits the excretion of water, but does not interfere with its absorption from the alimentary tract thus causing the system to be overloaded with water. If it is continued death ensues. Hypertonic salt solution or urea counteracts this effect. These symptoms are caused by a dilution of body fluids with respect to salts. Heat cramps are similar. Men exposed to extremes of heat lose large quantities of salt in the sweat. If the water content is restored only with water the concentration of salt in the body fluids decreases so that normal functions are disturbed.

The dependence of the total water content of the body upon the retention of salts may be illustrated in a number of ways. Dehydration accompanying pyloric obstruction cannot be relieved by water alone. With the continued secretion of gastric juice considerable quantities of chloride and some sodium are lost. The preponderance of base left in the blood is excreted by the kidneys with the result that both the sodium and chloride in the extracellular fluid is rapidly depleted. Water has no therapeutic value here and is merely excreted.

Another illustration is the gradual loss of body fluid occurring in individuals living on salt-free diets. We all know that patients with impaired renal function for excretion of salt will get retention of fluid if salt is given; and further that removal of edema fluid is really a problem of bringing about the excretion of sodium chloride. Storage of water goes hand

in hand with storage of salt, one cannot be retained without the other. Hence, either one alone acts as a diuretic.

#### INFLUENCE OF CENTRAL NERVOUS SYSTEM AND HORMONES

1. Puncture of the floor of the fourth ventricle we know causes polyuria.

2. The common association of diuresis with nervous excitement is another illustration.

The adrenal cortex seems to be concerned with regulating and maintaining the normal distribution between intracellular and extracellular fluids. The premenstrual edema of women is another indication of the complex relations between water balance and interior secretions.

#### EXCHANGE BETWEEN PLASMA AND INSIDE

Translocations of water in the organism can be explained by known physical and chemical forces only to a certain extent. Very often the living membrane participates actively in fluid exchange, causing water and solutes to move in opposite directions to the concentration gradient. Otherwise fluid movement is determined by osmotic and hydrostatic pressure.

Osmotic pressure is the result of an unequal concentration of fluid on two sides of a membrane. If an aqueous solution of sucrose is separated from water by a membrane permeable to water, but not to sucrose the water will move into the sucrose solution until it attains infinite dilution. By raising the hydrostatic pressure of the sucrose solution a point can be reached where the water molecules move out of the solution as fast as they enter it. This rise in hydrostatic pressure equals the osmotic pressure and is a measure of it. It is not due to any peculiar attraction of sugar molecules for water, but simply to the fact that their presence lowers the concentration of the solution as compared with the water outside. Hence water moves in until the diffusion pressure is the same on both sides. This diffusion pressure or direction of flow then is dependent on concentration and on hydrostatic pressure.

In the body the effective osmotic pressure is due almost solely to the plasma proteins because the endothelial wall of the capillary is

practically impermeable to them. It tends to draw fluid inside the capillary. This continuous osmotic pressure is balanced greatly by the hydrostatic pressure in the capillaries. It tends to push the fluid out of the capillary. Thus the two forces tend to balance each other.

Increase in venous pressure causes an increase in capillary pressure with transudation of fluid out of the capillary. Decrease the venous pressure and absorption occurs.

This is illustrated by standing. The increase in venous pressure in the lower extremities results in transudation of fluid from the capillary to the tissue as shown by an increase in plasma concentration and an increase in volume of the legs. In about thirty minutes there is no further change because the tissue fluid pressure has risen to a point where it counterbalances capillary pressure. On reclining the venous pressure falls and fluid returns to the circulation.

Great changes in the fluid movement then can be achieved by changes in capillary pressure or permeability. Injury either chemical or mechanical increases permeability so that fluid and protein escape into the tissue. A burn will illustrate this. Since the vasomotor system controls this, it is the prime factor in determining local and general movement of fluid between blood and tissues. Through its integrative action it permits transudation in one part and absorption in another without any changes in plasma volume.

#### LYMPHATICS

There is another important drainage channel for interstitial fluid. It is the lymph channels. It is the only channel for protein that appears in tissue spaces as a result of cell metabolism. These lymph channels are a closed set of tubules collecting fluid and water from the extracellular spaces and transporting them directly to the blood stream. They are an important factor in removing interstitial fluid and cell waste.

#### THE INTRACELLULAR FLUID

Diffusion through the cell membrane is free to water and to nutritive products, but is impermeable to potassium, sodium and other cations. The potassium concentration within the cell is the same as the sodium concentration

that bathes the cell in the interstitial fluid. The hydrogen ion concentration is maintained throughout both. The cells themselves are not capable of much distention so that extra potassium ingested is passed in the urine. Excess sodium base outside the cell has plenty of expanding space available so water is derived from surrounding tissues to dilute the base until the right concentration is reached. Retention of sodium thus is possible only with adequate retention of water. If some local factor prevents the sodium chloride and the water from reaching the kidney, edema results. Edema then is the accumulation of sodium chloride solution in the interstitial compartment.

When we once understand the underlying physiological processes involved in water metabolism the pathogenesis of edema becomes much more simple. Its appearance indicates pathology involving one or more of the following: capillary pressure, osmotic pressure, capillary permeability or decreased lymphatic drainage. This is greatly clarified by referring to the following table.

#### PATHOGENESIS OF EDEMA

(After Landis)

1. Increased capillary blood pressure.
  - (a) Congestive heart failure.
  - (b) Thrombophlebitis.
  - (c) External pressure on veins.
  - (d) Heat.
  - (e) Dependency.
  - (f) Vasodilatation (hemiplegia, trophedema).
2. Decreased plasma colloid osmotic pressure.
  - (a) Loss of Albumin.
    - (1) Urine.
    - (2) Ascites.
  - (b) Inadequate protein intake.
    - (1) Dietary restriction.
    - (2) Impaired absorption (vomiting, diarrhea, mucosal edema, etc.)
  - (c) Impaired synthesis of plasma protein.
    - (1) Infection.
    - (2) Anemia.
    - (3) Cachexia.
    - (4) Hepatic malfunction.
    - (5) Nephritis.
    - (6) Pregnancy.
  - (d) Sudden plasma dilution.
    - (1) Following sudden recovery from dehydration (diabetic coma, diarrhea in children, etc.)
    - (2) Following acute massive hemorrhage.
3. Increased capillary permeability (allowing passage of protein and diminishing effective colloid osmotic pressure).
  - (a) Inflammation (infection, burns, etc.)
  - (b) Acute glomerulonephritis.
  - (c) Anemia (anoxemia).
  - (d) Congestive heart failure (anoxemia).
4. Decreased lymphatic drainage.
  - (a) Lymphedema.
  - (b) Increased venous blood pressure (congestive heart failure).

#### SUMMARY

1. Water of the body may be considered as occupying three compartments.
2. Hydrogen ion concentration is maintained at the same level in all of them.
3. Interference with this concentration causes marked symptoms.
4. Free communication of compartments is maintained by capillary wall and cell membrane.
5. Osmotic pressure and hydrostatic pressure controls the flow of fluid between the first two compartments.
6. Vital processes or living membranes control that between the latter two.

#### CONCLUSION

Water metabolism is a complex mechanism. The most outstanding sign of any derangement of this mechanism is edema.

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#### ISOLATED MYOCARDITIS

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Isolated myocarditis was first described by Fiedler<sup>1</sup> in 1890. The disease is characterized by myocardial insufficiency of relatively rapid course in which none of the recognized etiological factors of heart disease are present. No cause is known. The pathologic changes are limited to the myocardium. The pericardium, endocardium and valves are spared. There is an infiltration of the interstitial spaces of the myocardium with lymphocytes, and polymorphonuclear leukocytes, especially of the eosinophilic type. Scott and Saphir<sup>2</sup> found 36 cases of isolated myocarditis in the foreign literature of which they reported 30,

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and added two cases of their own, the first to be reported in the American literature. A more detailed report of the pathogenesis of isolated myocarditis can be found in this paper. De La Chapelle and Graef<sup>3</sup> added a case of their own in 1931. A search of the Cumulative Index since 1931 reveals several other reported cases, the last of which is by Helvig and Wilhelmy. Their article summarizes the literature to date and brings the total reported cases to 53.<sup>4, 5, 6, 7</sup> To these may be added one from Lakeside Hospital, Cleveland, a negress, aged 25, with a diagnosis of acute isolated myocarditis made by autopsy at the Institute of Pathology, Western Reserve University.

All of these patients have died. Rarely is the diagnosis made antemortem, the diagnosis being a pathological one. The purpose of this paper is to report a case of isolated myocarditis, if such a diagnosis can be made clinically, diagnosed antemortem.

#### CASE REPORT

A. W., a 31-year old, white married male, was admitted to Lakeside Hospital, Cleveland, on September 10, 1934. He had been employed as an automobile mechanic for two years before the onset of his illness without loss of work because of ill health. At the age of seventeen he had taken part in amateur bicycle races and for a few years before admission had been a skating enthusiast. He had never had scarlet fever, rheumatic fever, or syphilis. He had never had diphtheria though, until eight years before admission, he had frequently had sore throat which ceased after tonsillectomy. Four years before entering the hospital he had gonorrhea with epididymitis. The family and marital histories were irrelevant. For the year preceding admission he had been drinking from 150-200 cc. of whiskey a day, with more over the week-ends.

*Present Illness:* About one month before admission to the hospital the patient began to notice shortness of breath on exertion and a sense of fullness in the chest and abdomen. Shortly after this he would awaken at night and find himself short of breath with a bandlike sensation of tightness across his abdomen. After one week he consulted a physician who had roentgenograms taken which showed "a large heart and pleurisy on the right." (From later x-rays at this hospital the pleurisy must have referred to fluid). The patient continued to work until ten days before admission when increasing dyspnea on exertion prevented further work. Orthopnea at night interfered with sleep and he became very weak. Three weeks before admission he began to have edema of the ankles which increased. He never complained of precordial pain or palpitation.

*Physical Examination:* A well developed and well nourished white male was lying quietly in bed, slightly orthopneic. Eyes: pupils equal and regular, reacting to light and in accommodation. Fundi were normal except for slight engorgement of the veins. Neck: slight engorgement of the neck veins. Lungs: left costal margin stationary on respiration. Small amount of fluid at the right base; coarse, moist rales at both bases. Heart: slight precordial activity. Left border of cardiac dullness 12.5 cm. from the midsternal line in the fifth interspace. There was no supracardiac dullness. Right border of cardiac dullness 3.0 cm. from the midsternal line in the fourth interspace. Heart sounds of good quality; rate

100, rhythm normal; faint systolic murmur at the apex; blood pressure 125/88. Abdomen: the liver edge was at the level of the umbilicus on the right; liver was tender to palpation. There was no fluid. Genitalia: there was no penile scar. Extremities: there was marked pitting edema of feet, ankles and legs; slight sacral edema. Reflexes were physiologic.

*Laboratory Findings:* The urine was normal. The white blood count on admission was 10,500. For the first 47 hospital days the white blood count averaged 10,000 and from that point there was a gradual fall to 7,000 at discharge. The red blood count was 5,460,000; hemoglobin (Sahli) 102 per cent; blood Wassermann and microscopic precipitation tests negative on two occasions. Blood urea nitrogen was 16.1 mg. per 100 cc. Sedimentation time: the maximum rate of fall was 0.15 mm. per minute. Basal metabolic rates on the first, second, sixteenth and twenty-eighth hospital days were +24, +25, +7, and normal, respectively. Electrocardiograms showed a low voltage and evidence of myocardial damage. Fluoroscopic examination of the heart showed it to be greatly enlarged both to the right and to the left. It was bag-shaped, with minimal pulsations. There was no change in the configuration of the silhouette with the patient in the upright or recumbent position, showing that pericardial effusion was not present. Two meter chest x-ray plates on the third hospital day showed a transverse diameter of the heart of 19.6 cm., while the transverse diameter of the chest was 33.0 cm. This plate showed no pleural fluid at either base.

The presence of a persistent slightly elevated white blood count indicates the presence of a low grade inflammatory process somewhere in the body,—in this patient probably in the heart. A sedimentation rate as reported is normal. The elevated basal metabolic rates on the first and second hospital days are explained by the elevated basal metabolic rates due to cardiac decompensation, and the rapid return to normal further substantiates this. A transverse diameter of the heart exceeding one-half the transverse diameter of the thorax denotes enlargement.

*Hospital Course:* On admission, the patient's temperature was 37.5 C., pulse 124, and respiration 24. The heart rate fell to 100 during the first three hospital days. Digitalis was administered rapidly and the weight fell from 72.1 Kg. to 64.4 Kg. in one week coincident with a good diuresis and the loss of the edema. By the twentieth hospital day the pulse rate had dropped to 80 and remained there. He was kept at absolute bed rest for one month and then was allowed up gradually. It was noted then that marked pulsus alternans was present. The appearance of pulsus alternans was not reflected in any change in the electrocardiographic records. He was again given bed rest for two months during which time pulsus alternans persisted. At the end of this two months' period pulse and blood pressure showed a normal response to mild exercise. He was then allowed up gradually and progressively with no ill effect except the persistence of the alternation of the pulse. A two meter chest plate on the 116th hospital day, two days before discharge, showed a transverse diameter of the heart of 14.4 cm. and a transverse diameter of the thorax of 32.0 cm. The heart viewed through the fluoroscope showed normal, vigorous contractions. The electrocardiogram taken the day of discharge showed a normal voltage, but still evidence of myocardial damage.

*Follow-up Notes:* The patient was kept on a maintenance dose of digitalis throughout his hospital stay. This was continued for one week after discharge and then all medication was stopped. He did odd jobs which required no physical exertion with no difficulty. He noticed that when he became excited and his heart rate would accelerate the pulse would alternate. This caused no discomfort. He discontinued the use of alcohol except for an occasional glass of beer.

On August 19, 1935, the patient was admitted to Lakeside Hospital again. For three weeks before admission he had become short of breath with mild orthopnea.

Diagnostic procedures and course of disease were similar to those of his first admission, and he was discharged October 2, 1935, improved to the same point as at the original discharge.

He was continued on a maintenance dose of digitalis and restricted activity until June 1, 1936, when he was again admitted with a three weeks' history of beginning decompensation. He continued in the course of decompensation with no relief from therapy and died June 20, 1936, following terminal episodes characterized by pulmonary infarctions.

*Pathological Examination:* The pathological diagnosis was cardiac hypertrophy and dilatation, organizing endocarditis with polypoid mural thrombi (terminal), and multiple pulmonary infarcts. The significant pathological change was found in the heart, microscopically. Grossly, only a large heart with no significant findings was found.

All the sections showed obvious hypertrophy of the muscle bundles, which were separated by moderate amounts of pale, pink-staining intercellular substance, probably collagen. There was also a diffuse exudation of various types of round cells, which usually formed small foci of a few to a dozen cells. Lymphocytes, plasma cells, and mononuclear cells were seen. In the neighborhood of such cellular foci there was often a slight degree of fibrosis. These changes are interpreted as representing a mild, but definite, myocarditis.

#### DISCUSSION

This case is presented as one of isolated, or Fiedler's, or interstitial myocarditis because it conforms as to history and physical findings with those previously reported, and because no etiological agent could be found for the myocardial insufficiency. There was no history of rheumatic infection, the sedimentation rate was normal, there was no anemia and no evidence of valvular disease clinically or roentgenologically. Thyrotoxicosis was not a factor as the patient had never displayed the symptoms of this disease, such as tachycardia, nervousness, tremor, loss of weight, etc. The patient gave no history of syphilis, and the Wassermann reaction was negative. There was no evidence of vascular disease of either the small or large vessels and no evidence of systemic infection of any sort severe enough to account for heart disease secondary to it. Primary myocardial insufficiency from the use of whiskey over long periods of time does not occur. Paul White<sup>8</sup> says, "Alcohol in strong concentration can without doubt injure the myocardium, but to a less extent than the liver; in small or moderate amounts it probably has little or no effect." An adequate dietary precluded a diagnosis of beriberi heart. His course over three admissions gave no indication of myocardial infarction, either clinically or electrocardiographically. The patient had not had influenza prior to the onset of the

disease and there was no reason to suspect that he suffered from diphtheria.

Previous writers on the subject of isolated myocarditis have stated, in retrospect, that the diagnosis of this condition must be made by exclusion. After an adequate period of observation and exhaustion of all clinical and laboratory aids a diagnosis of isolated myocarditis was left, which seemed consistent.

Pathologically, the microscopic picture does not conform exactly to the recognized picture of acute isolated myocarditis. The changes are chronic and minimal. However, it is felt that the patient died from cardiac decompensation due to an inadequate myocardium, rendered inadequate by acute isolated myocarditis two years previously. The pathological picture supports this contention, and as clinically the patient presented the history and course of isolated myocarditis justification was felt in calling this a case of isolated (Fiedler's) myocarditis, diagnosed before death.

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#### SYPHILIS TRANSMITTED BY KISSING

Syphilis was transmitted to five of eleven members of a family by means of kissing, Gracie R. Rowntree, M. D., and James Robert Hendon, M. D., Louisville, Ky., report in *The Journal of the American Medical Association* for July 13. The original familial infection was from an outside source—through kissing.

The authors state that physicians should be more suspicious of all lesions which might possibly be syphilitic. Two of their patients, they say, had previously been to physicians who made a diagnosis of lip impetigo in one and trench mouth in the other. Only good fortune saved the entire family from acquiring the disease, as they were all affectionate people.



## INGUINAL HERNIA

### AN ANALYSIS OF 204 OPERATIONS

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This report is an analysis of 204 consecutive operations for inguinal hernia which I performed at the Henry Ford Hospital in Detroit, Michigan, from 1934 to 1937, inclusive.

Of the 204 patients operated upon 49 per cent have been adequately traced from two to four years. This is about the usual follow-up average where the majority of patients are drawn from a large industrial population such as Detroit. Those patients who responded to the follow-up system were carefully examined periodically by different members of the general surgical staff, and not by the operator alone.

Although no definite time limit can be laid down beyond which a recurrence may take place, I feel that any follow-up study which is to reveal worthwhile facts should extend over a period of two years or more. This premise is particularly well borne out in the report by Fallis<sup>1</sup> of the Henry Ford Hospital who, in 1936, reported a series of 1,600 consecutive operations for inguinal hernia. His study revealed that while one-half of the recurrences were observed within one year of operation, one-third were noted more than six years after operation.

#### GENERAL STATISTICS

*Sex.* Inguinal hernia in the male totaled 202 cases and in the female 2 cases, or 0.9 per cent (*Table 1*). In several large series of inguinal hernia that have been reported, the percentage of this type of hernia in females ranges from 1.0 per cent to 5.0 per cent. This relative infrequency of inguinal hernia in the female is probably the result of reduced occupational hazards as well as anatomical differences.

TABLE I

SEX		
	Number of Patients	Percentage
Female .....	2	0.9%
Male .....	202	99.1%

*Obesity.* Obesity is generally regarded as a predisposing factor in the development of in-

guinal hernia. In this series of 204 operations, 47 patients, or 23 per cent, were recorded as moderately or markedly obese. The presence of excess fat in structures of the inguinal region is probably a greater factor in the production of recurrent inguinal hernia than in the development of the primary hernia. Also, it is certainly true, as Fallis<sup>1</sup> points out, that the presence of excess fat not only renders the operation technically more difficult but lengthens the operating time and increases the risk of infection.

*Occupation.* The occupation is an important factor in the etiology of hernia. In this group I found that 167, or 81 per cent, of the patients were recorded as engaging in hard to moderately hard labor. (*Table II*). The remaining 19 per cent pursued a sedentary type of work.

TABLE II

#### OCCUPATION

	Number of Patients	Percentage
Hard labor.....	167	81%
Sedentary .....	37	19%

*Trauma.* The factor of trauma in the form of sudden strain is often regarded as one of the chief exciting causes of hernia. The exact role which this factor plays is an interesting but difficult thing to evaluate. The great mass of social legislation in recent years and the adoption of workmen's compensation laws in nearly all countries have made the subject of traumatic hernia one of vital importance. A history of injury was obtained in 136, 66 per cent, of the cases. It is now almost universally recognized that the most important cause of oblique inguinal hernia is the presence of a preformed sac of peritoneum known as the processus vaginalis. I subscribe to this view because a potential indirect sac can always be found at the internal ring if a careful search is made.

TABLE III

#### DURATION OF HERNIA BEFORE OPERATION

	Number of Patients	Percentage
One year or less.....	126	61.7%
One to two years.....	15	7.3%
Two to three years.....	8	3.9%
Three to four years.....	5	2.4%
Four to five years.....	4	1.9%
Five to ten years.....	22	10.0%
Ten to thirty years.....	4	1.9%
Unknown .....	20	

The duration of hernia before operation is of some interest. In Table III it will be noted

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that 61.7 per cent of the patients had had hernia one year or less before coming to operation. Over 77 per cent were operated on within five years of the development of the hernia. These figures indicate the trend toward early operation. Since the majority of these cases are drawn from a large industrial population there are probably two reasons to account for this. As previously pointed out, most of these persons are engaged in work which entails moderate to heavy labor. Therefore the appearance of a hernia is attended with sufficient discomfort so that they soon report it and have it repaired within a reasonably short time. A good many other herniae are probably discovered in the course of the physical examination required before employment. These people are, of course, refused employment until their herniae have been repaired.

*Truss.* Thirty-seven, or 19 per cent, of the patients gave a history of wearing a truss before operation. This was an interesting point because there are some who contend that the wearing of a truss causes a pressure atrophy of the tissues in the inguinal region and this renders the repair less satisfactory. An analysis of these cases fails to bring forth any evidence to substantiate that view.

*Strangulation.* There were only 2 cases, or 0.9 per cent, of strangulated herniae in the entire group. Neither of these cases required intestinal resection. In the earlier reviews this was a rather frequent surgical emergency. The present relative infrequency of this dreaded complication is regarded as a good index to the surgical progress of today.

*Anesthetic.* Spinal anesthesia was used in 165, 80 per cent, of the cases (*Table IV*). In this group it was necessary to supplement the spinal anesthetic with ethylene and ether in 25, or 12 per cent, of the cases. General anesthesia consisting of ethylene and ether was used in 37, 18 per cent, of the cases. Spinal anesthesia is the preferable anesthetic but was not used in this small group either because the patient refused it or because there was some contraindication to its use. In 3, 1.2 per cent, of the total operations local anesthesia with novocain was used. I have no dislike for local anesthesia but reserve its use for those cases in which spinal or general anesthesia is contraindicated.

TABLE IV

ANESTHETIC

	Number of Operations	Percentage
Spinal	165	80.8%
Ethylene and Ether	36	18.0%
Local	3	1.2%

*Side of Hernia.* It is generally stated that the right side is slightly more often affected than the left, in the ratio of 3 right to 2 left. In this series the right side was affected in 109 instances and the left in 95, a ratio of 5 right to 4 left. Bilateral herniae were found in 69 cases and comprised 33 per cent of the total number of operations.

*Type of Hernia.* Direct herniae constituted 73, 35.8 per cent, of the 204 operations under consideration (*Table V*). This figure also included 3 herniae of the saddle-bag type which I feel should be classed with this group. To date there have been three known recurrences among 43 operative cases of direct hernia which have been traced, thus giving a recurrence rate of 6.9 per cent. The youngest patient was 22 years of age and the oldest 60 years.

The indirect type of hernia was present in 131, 64.2 per cent, of the cases. The youngest patient was 5 years of age and the oldest 59 years; the average age for this type was 36 years. Two cases of oblique hernia were in females. There were three recurrences in 58 traced cases of this group giving a recurrence rate of 5.1 per cent.

TABLE V

TYPE OF HERNIA

	Total Number		
Direct	73		
Indirect	131		
Total	204		
	Traced Herniae	Recurrent	Percentage
Direct	43	3	6.9%
Indirect	58	3	5.1%

*Type of Operation.* The two classic operations of Bassini and Halsted were employed in the repair of these herniae. The Halsted<sup>2</sup> technique as followed in the Henry Ford Hospital is that described by Halsted in his later articles. It is very similar to the non-transplantation method of Ferguson,<sup>3</sup> in which the conjoined muscles are sutured to Poupart's ligament in front of the cord. The Halsted technique was employed in 76.3 per cent of the cases of indirect herniae (*Table VI*). Twelve oblique

herniae, 9.2 per cent, were repaired by the Bassini<sup>4</sup> method. The remaining 19, 14.5 per cent, were repaired by the modified Bassini or original Halsted<sup>5</sup> technic by transplanting the cord external to the external oblique aponeurosis. In the direct herniae the Halsted procedure was used only in one instance. The modified Bassini technique was utilized in the repair of 46, 63 per cent, of the cases while the remaining 26, 35.6 per cent, were repaired by the Bassini method. I feel that in young people with indirect herniae the Halsted operation is the procedure of choice. The high ligation of the sac with utilization of the cremaster muscle and fascia and imbrication of the external oblique aponeurosis are the main essentials of the Halsted operation. This method thus serves to give the best possible support at the internal ring which is the main weak point in indirect herniae. In direct herniae the principal point of weakness is Hesselbach's triangle. The Halsted method of repair is not satisfactory for this type of hernia because the emergence of the cord at the external ring, just lateral to the pubic spine, weakens the repair in the most vital area. The Bassini technic, however, provides the maximum support necessary in the repair of direct herniae. Its chief weakness lies in dealing with the internal ring where most of the recurrences occur after the repair of direct herniae by this method.

TABLE VI  
TYPE OF OPERATION

Type	Operations Traced	Operation	Recurrences	Per-centage
Indirect	58	Halsted	100	5.1%
		Bassini	12	
		Modified Bassini	19	
Direct	43	Halsted	1	6.9%
		Bassini	26	
		Modified Bassini	46	
Total	101		204	Av. 5.9%

In the repair of all direct and indirect herniae it is my practice to pick up and incise the potential indirect sac just mesial to the cord as advocated by Huguier.<sup>6</sup> I then insert my forefinger and apply pressure against the internal surface of Hesselbach's triangle. It is then an easy matter to determine by palpation whether there is a defect or a general weakness of the structures under consideration. If either one or both conditions are found, the Bassini operation is selected as the one of choice. In those cases in which there is just a general weakness of the

structures in Hesselbach's triangle it is essential to plicate the transversalis fascia to take up the slack.<sup>1</sup> This is done after pulling up the excess peritoneum at the internal ring and closing the mouth of the sac from within by means of a purse-string suture of fine silk. If there is a defect in the transversalis fascia with a direct sac projecting through it, the latter is converted into an indirect sac by pulling up the excess peritoneum through the internal ring. The mouth of the sac is then closed with a purse-string suture and the defect in the fascia repaired before proceeding with the remainder of the Bassini repair. If the transversalis fascia is thinned out and difficult to repair satisfactorily, I believe that the modified Bassini or original Halsted method, where the cord is transplanted external to the external oblique aponeurosis, is the method of choice, since it gives the maximum of support. This method of repair was employed in 63 per cent of the cases of direct herniae.

It is my custom to use silk as the suture material in practically all hernioplasties. The exceptions to this rule are largely limited to those in whom there is some question as to the condition of the skin. It would be an ideal suture material if it were not for the problem of wound infection. When this complication presents itself there is a delayed period of healing and draining sinuses persist until the infected sutures have been discharged or removed. This complication was encountered in 4.4 per cent of the cases in this series.

*Associated operations.* In the 204 operative cases there were twelve associated operations. Six of these were bottle operations for hydrocele. In another two the hydrocele was completely excised. The appendix was removed in four cases through the hernial incision at the internal ring. In one case a circumcision was performed. Additional surgery in connection with hernioplasties should be discouraged because of the increased incidence of wound infection and other complications as pointed out by Fallis.<sup>1</sup>

*Postoperative complications.* As will be noted in Table VII, 26, 12 per cent, of the total number of operations were complicated by one or more of eight conditions. Pulmonary embolism occurred in 2 cases with 1 death, a mortality rate of 0.49 per cent. Phlebitis was

present in 3 cases, or in 1.4 per cent of the total number of operations. This is not infrequently a very disabling condition because of the destruction of the deep venous circulation. The greatest danger from this complication, however, lies in fatal pulmonary embolism which most often occurs before the phlebitis is clinically recognized. Pulmonary complications in this series were not of a serious nature. There were 3 cases of atelectasis and 1 of pneumonitis and these patients all recovered. Two patients developed hematomas in the wound which were of no consequence. Swelling of the testicle was noted in 3 instances, or in 1.4 per cent of the cases. Atrophy of the testicle was observed in a like number of cases. Wound infection occurred in 9 cases, or 4.4 per cent of the total number. This complication necessitated a longer stay in the hospital but was not found to be a causative factor in recurrence.

TABLE VII  
COMPLICATIONS FOLLOWING OPERATION

		Percentage
Hematoma	2	0.9%
Swelling of the testicles	3	1.4%
Wound infection	9	4.4%
Testicular atrophy	3	1.4%
Phlebitis	3	1.4%
Atelectasis	3	1.4%
Embolism	2	0.9%
Pneumonitis	1	0.4%
Total	26	12.2%
Mortality	1	0.49%

**Recurrence.** The follow-up system was only effective in tracing 101, 49 per cent, of the 204 cases for a period of two to four years (*Table VIII*). Among 43 traced operations for direct herniae, there were three known recurrences resulting in a recurrence rate of 6.9 per cent. The time of the recurrence was noted at three months, one year and twenty-one months respectively.

There were 58 traced cases of indirect herniae with 3 recurrences, a recurrence rate of 5.1 per cent. The time of recurrence was noted at eighteen months, two and one-half years and three years respectively. Thus it seems that the recurrence percentage is nearly equal for both the Bassini and Halsted methods of repair in this series of cases.

TABLE VIII  
RECURRENCES

	Operations Traced	Recurred	Percentage	Time of Recurrence
Indirect	58	3	5.1%	1½, 2½, 3 years
Direct	43	3	6.9%	¼, 1, 1¾ years
	101	6	Av. 5.9%	

## SUMMARY AND CONCLUSION

1. An analysis of 204 consecutive operations for inguinal hernia form the basis for this report.

2. In the follow-up study it was possible to trace only 101 cases, 49 per cent of the total number, for a period of two to four years.

3. The recurrence rate in the traced cases was 5.1 per cent for indirect herniae and 6.9 per cent for the direct type.

4. The Halsted or Ferguson operation gives satisfactory results in the repair of indirect herniae in young patients.

5. In direct herniae it is essential to repair the transversalis fascia.

6. Bassini's operation and the extra-aponeurotic transplantation of the cord operation, as originally advocated by Halsted, are the two most satisfactory methods of repairing direct herniae.

I wish to thank Dr. Roy D. McClure, Surgeon-in-Chief of the Henry Ford Hospital for the privilege of reporting these cases. I also wish to express my gratitude to Drs. L. S. Fallis and R. T. Boals of the above institution for their invaluable assistance in working up these cases.

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316 Exchange Bldg.

## PANTOTHENIC ACID AND NUTRITION

Observations made by T. D. Spies, M. D., Cincinnati; S. R. Stanbery, M. A., Birmingham, Ala.; R. J. Williams, Ph. D., Austin, Texas; T. H. Jukes, Ph. D., and S. H. Babcock, Ph. D., Berkeley, Calif., indicate that pantothenic acid is essential to human nutrition and that its function is probably associated with that of riboflavin (vitamin B<sub>2</sub>), they report in the Aug. 17 issue of *The Journal of the American Medical Association*. Pantothenic acid is a powerful growth-stimulating acid found in many plants and animals.



KIDNEY INFECTIONS AS A RESULT  
OF OBSTRUCTIONCLYDE F. BOWIE, M. D.  
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What I may have to say in this short time, in consideration of infectious diseases of the upper urinary tract, will include only the following points: first, the origin of the infection; second, the condition of the urinary tract below the kidney which would be likely to result in obstruction to the outflow of urine from the kidney; and third, the progressive pathology in the kidney as result of obstruction and infection.

Obviously there are only three ways in which an actual infection can reach the kidney: the most common is by metastasis through the blood stream; the second is by extension up the ureter from infection lower down in the urinary tract; and the third, which is most rare, is by direct extension from adjacent organs. It is not necessary for me to enumerate the various organisms which may infect the kidney except to state that the most common of these are staphylococci of various kinds, streptococci, bacilli most often of the colon group, tubercle bacilli and very rarely a Neisserian infection which has extended up from the lower urinary tract.

The second of the two methods may be dismissed after a very few words. Organisms which extend up from the bladder in a retrograde manner to the upper urinary tract will do so because of some pathology in the lower urinary tract. It is not uncommon to see cases of long-standing urinary obstruction, produced by prostatic hypertrophy, carcinoma, or by urethral stricture which has existed over a long period of time, in which the ureters are dilated to a very large size, kidney pelves widely dilated, and calices greatly dilated or almost obliterated. Discovery of this condition is very often made in doing cystograms, when a medium is injected into the bladder while the patient is prone, at which time it will be found to have run up through the ureters and into the kidney pelves, simply by filling the bladder. It is not hard to see how an infection which really originated lower in the urinary

tract might be carried up from the bladder to the kidneys by reflux of urine, especially when the patient is lying down. In this type of case the pathology actually exists in the lower urinary tract, most often the urethra, rather than in the kidney itself. I do not believe it is possible for regurgitation of urine to occur through a normal ureter with its valve-like closure of the ureteral meatus.

There have been reported a very few proved cases of ascending gonorrheal infection to the kidney pelves, producing a pyelitis of gonorrheal origin. It is very likely, however, that a great many of these cases which were formerly reported as a gonorrhea involving the kidney were in error. Authorities will not now accept a diagnosis of gonorrheal pyelitis unless the organisms have been cultured, and since this restriction has been placed on this diagnosis but few cases of gonorrheal pyelitis have been reported. Most patients in whom we suspect a gonorrheal infection of the kidney will, when a culture is made, be found to have a staphylococcal infection which exists in intra-cellular arrangement and apparently has taken on some gram negative characteristics similar to those of the gonococcus. I can truthfully say that I have never seen a proved gonorrheal infection of the kidney. The fact that I have seen a good many cases of Neisserian infection leads me to be certain that the incidence of gonorrheal pyelitis is extremely rare, and that when it does occur, it is in patients who have widely dilated ureters making regurgitation of urine possible.

The third method of entry of organisms into the upper urinary tract, namely, by direct extension from adjacent organs, is of far greater rarity than the method just discussed. Occasionally, however, we think that it does happen. A perinephritic abscess may rupture through the capsule of the kidney, possibly into a calix and thus into the kidney pelvis, or it may rupture directly into the kidney pelvis itself. This occurs in rare instances, even when a perinephritic abscess does exist and these abscesses themselves are uncommon. Occasionally an abscess of the liver may empty itself into the right kidney, and there has been reported one case of appendiceal abscess in a high retrocecal appendix which ruptured and

drained itself into the right kidney. These cases are of sufficient rarity to be negligible.

Obviously the most common method of entry of organisms into the upper urinary tract is by metastasis through the blood stream. It may be well to mention here that not all organisms which reach the kidney through the blood stream do any appreciable damage. For example, undoubtedly you have seen cases of typhoid fever in which millions of colon-like bacilli were found to exist in the urine without the existence of pus. Also, you have probably isolated tubercle bacilli from the urine without urinary symptoms and without an appreciable amount of pus in the urine. This we speak of as a bacteruria, which means simply that these organisms are separated from the blood stream by the kidneys and are excreted through the urine without actually producing any pathologic changes anywhere in the urinary tract. It is not hard to prove that organisms do travel through the blood stream to the kidneys and that thus the kidneys are liable to infections which may exist elsewhere in the body, most commonly in the teeth, tonsils and intestinal tract.

Granting that organisms do come through the kidneys, let us see if we can determine what conditions could exist to cause them to produce pathologic changes. Let us suppose that we have some obstruction to the outflow of urine from one kidney, so that the urine is retarded or retained in the kidney itself. Organisms which reach a kidney of this kind would obviously have a better opportunity to grow because of lack of drainage and because of the kidney's lowered resistance due to lack of drainage. This fact will be the basis for what I have to say with regard to urinary tract infections, and I hope that I may convince you that kidney infections are infections plus obstruction and that really the obstruction is the thing of major significance.

Let us see what conditions might produce obstruction to the outflow of urine from the kidney. Possibly the most common is stricture of the ureter, though stones in the ureter are rather common, and malignancies in the ureter or close to the ureter are rare but do occur. Ptosis of the kidney often kinks the ureter in such way as to cause obstruction; aberrant

blood vessels at times hook up the ureter in such way as to cause the urine to drain less freely. It is necessary also to include obstructions further down in the urinary tract because these obstructions may make themselves felt in the kidney pelves. Most common, of course, are prostatic obstructions, urethral strictures, stones in the bladder or urethra, or even a tight meatus. I believe that one of these various types of obstruction must exist if the kidney is seriously damaged by infection, whether we are able to demonstrate the obstruction or not; that if it were not for various obstructions to the outflow of urine, we, as urologists, would have very little to do except treating venereal diseases.

From an anatomical picture of the entire urinary tract, we can easily see that obstruction in the ureter will cause pathological conditions in one kidney only, and that we would have symptoms referable to one side only. This will account for many cases of one-side backache which are almost always kidney affairs. If obstruction exists lower down in the urinary tract, we would expect a bilateral condition to exist and the symptoms to be referable to both sides.

If our previous assertion is correct, that in order to get actual infection there must have been an obstruction, we must assume that the first symptom of which the patient would complain would be due to back pressure of urine, and that the back pressure would produce pain which would be in the region of the kidney, possibly extending down the ureter of the side, depending upon how low in the ureter the obstruction occurred. If the obstruction appeared suddenly, we would expect this symptom of pain to appear suddenly. This is most accurately exemplified by pain which we see in cases of ureteral stone. If we observe a case of stone in the ureter which does not pass for some time we will notice that these patients gradually cease to complain of the symptom of pain, even though the pelvis of the kidney and the ureter have become markedly dilated, so that after a period of time acute pain ceases to be a symptom. If obstruction, from whatever cause, advances over a long period of time, becoming more and more marked all along, it is very likely that there may be no attack of

acute pain, but that the process will be so gradual that the patient will notice only a dull backache confined to one side, if the obstruction is in the ureter. This happens most often in cases of slowly developing ureteral stricture. Any of these conditions, as you know, would produce dilation of the kidney pelvis and of the calices with some retention of urine in the kidney pelvis.

Suppose that organisms previously existing in the body come through the blood stream into a kidney of this kind. They would have an excellent opportunity to grow. Retention of infected urine would produce symptoms which can easily be imagined: severe pain and tenderness in the region of the kidney, very often a chill, high elevation of temperature with a good deal of lassitude and the patient's appearance of illness. Suppose that this condition of retention of infected urine in a dilated kidney pelvis advances over a long period of time, that is, it can easily be seen that the kidney itself would in time become markedly damaged by such a process, and that the longer the condition existed, the more damage we would expect of the kidney substance itself. It is very likely that such a patient, with a condition extending over a long period of time, would develop some immunity to this particular infection, that all symptoms would become lessened, that the incidence of pain would not be so severe, and probably sufficient immunity established to prevent a high elevation of temperature. I think this is a rather typical picture of the development of pyelitis or pyelonephrosis.

This will probably serve to give a general idea of just what happens in the development of kidney infections. When patients complain of vague pains in one side, and apparently most of these are women, with some tenderness and with an uninfected urine, differential diagnosis is difficult to make without accurate study. If a catheterized specimen of urine is infected and contains pus, we can suspect a kidney infection, although a diagnosis, even if infection is found, is at times confusing.

Several things may be confused with kidney pathology, excluding cases which are so glaring as to make diagnosis certain. For example, the appendix, particularly the high retrocecal kind, may produce symptoms which will closely simulate the condition which I have attempted to picture. More frequently it may be confused with diseases of the gallbladder; very often it is hard to separate from duodenal or gastric ulcer. The symptoms of abscess of the liver are difficult to separate from those of the right kidney.

There is probably no method by which we can as accurately picture these surrounding organs as we can delineate conditions of the kidney by accurate studies which we are able to make. By catheterizing the ureter of a suspected kidney, by microscopic examination of the urine, by actually measuring the capacity of the pelvis of the kidney in order to determine whether it is dilated, and by injection of a medium into the pelvis of the kidney in such way as to outline accurately the pelvis, calices and ureter on an x-ray plate, we can be practically certain of the actual condition of the kidney. We would be able to determine whether we were dealing with a pathological condition in the kidney itself.

There is very little for me to say about treatment of conditions of this kind. Obviously a great majority of the damage has been done by obstruction to the outflow of urine and this obstruction has made infection possible so that treatment should be directed to the obstruction. Also the source of infection should be cleared up, whether it be teeth, tonsils, or some other focus. Obstruction, of course, should be relieved. If it is due to stone, the stone must be removed; if due to ureteral stricture, dilation will usually prove satisfactory; if due to obstruction in the lower urinary tract, this should be remedied.

In comparatively few instances the process may have advanced to the point where the kidney is destroyed. Of course, if this is true, the kidney must be removed.

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1112 W. Main St.



## VENEREAL DISEASE CONTROL

G. F. HIGHSMITH, M. D.

Arcadia

The etiology of all venereal infections is known, also the prevention is not only known but is very simple. No one has ever been known to grow the *spirocheta pallida* in any other media than human blood serum. Therefore, because it is easily killed, very simple methods of cleansing and sterilizing will prevent infection. The following is one of the simplest methods, yet very effective: scrub with green soap and apply 33 per cent calomel ointment. Let this stay on for an hour or more.

The gonococcus has a wider field of living, but is very easily killed if attacked in the open, before it becomes imbedded in the tissue. The following will be sufficient: 10 per cent argyrol solution injected within two hours after exposure and held for five minutes. The female will require a thorough washing with green soap and a hot douche of bichloride of mercury, 1:2000, and an injection into the urethra of 10 per cent argyrol solution. The vagina, due to its acid reaction, is not often infected.

In 1917 and 1918 approximately four million men were drafted into the army. A few cases of gonorrhea appeared at inspection. Simple prophylactic methods were enforced but there was no legal restraint nor penalty on intercourse, other than compulsory prophylactic treatment. With so simple a treatment for prevention, isn't it absurd of us as physicians to stand idly by and see our boys and girls ruin themselves, because of ignorance as they battle with the problems of sex?

To the office of each of you has many times come a boy or girl with the story of injured morals and remorse, and worse, with a contracted disease, which may follow through life and even reach to future generations. This boy or girl should be taught the danger of infection, and the prevention of infection, because they are so simple.

Jean Ferrel in 1580 proved that infection would not pass through unbroken skin. He traced the course of disease from chancre to

eruption. This simple knowledge and enforced prophylactic treatment will reduce suicide, divorce, invalidism, idiocy, and the cost to the government will be reduced by millions. In return it will repay in beauty, health and happiness. It is easier to prevent the disease than to cure it. It will cost but two dollars to prevent a case of syphilis, but it will cost a hundred or more dollars to cure it.

Down through the centuries physicians and scientists had been striving to prove that syphilis and gonorrhea were not the same disease. Balfour and Bell proved this by their experiments. John Hunter did not agree with his forerunners, and to prove his idea he inoculated himself with the pus from a patient with gonorrhea. By chance he selected a patient who had syphilis also, and so John Hunter developed syphilis, seemingly proving his theory, and for a time causing confusion in the chain of knowledge. Finally, in 1879, Neisser isolated the gonococcus and ten years later Ducrey found the bacillus of chancroid. In 1905 Schaudinn produced the *spirocheta*, and in 1907 Wassermann announced his test, which is based on the discoveries of Bordet and Benou. In 1910 Paul von Erlich appeared on the stage and announced that he had a new weapon with which to fight syphilis,—dioxido-diamido-dihydro-arseno-benzol.

A shot or two and a cure. 606, Salvarsan. What a relief to a syphilis sick world!

The drug was expensive and had to be mixed and given by trained physicians. Rockefeller Institute gave a helping hand. Here we find ourselves in 1939 and 1940 with scientific knowledge including etiology, mode of transmission, symptomatology, tests, and treatment. Yet the disease is on the increase, with 450,000 new cases yearly. Why should syphilis increase? If as much were known about cancer, it would be eradicated by the end of 1940.

Factors which contribute toward this increase are:

1. Inadequate treatment and camouflage of disease.
2. Loose morals of men and women.
3. Effect of mixed races in population.

Inadequate treatment is worse perhaps than no treatment at all, as far as the general public is concerned. In many cases a few injec-

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Read before the Third Annual Meeting of the Southwest Medical District, Lakeland, September 28, 1939.

tions of neoarsphenamine are given which will heal the primary sore or skin and mucous lesions. The patient through ignorance, lack of care, or because of cost, will not take more. To all outward appearances he is a normal, healthy person,—a most dangerous state of camouflage. In a few weeks the disease will be in an active state again and the patient ready to transmit it to his next sexual partner.

From a social standpoint, it would have been better to have let this case go untreated and the skin and other lesions become noticeable. He would soon become a scaly-skinned, sorethroated, repulsive person, whom every one would avoid. His very repulsiveness would be a protection to the public.

There is nothing more important than to have a thorough understanding with your patient and to treat him only on condition that he is to follow the treatment to a cure. Otherwise, refuse treatment entirely.

Is it unfair to the present living generation, to say that they are more immoral than their forefathers? I believe poverty, machinery, moving pictures, cheap literature, apparent abortion rackets, easy divorce, etc. are having a tendency to lower our high standard of living. Poverty brings the poor girl from her usually well protected home, to work in the cafe, beer saloons and jook joints. If she is not of sterling and strong character, she is soon in the hands of the ill-mannered, infected, half treated, social nuisance of a man and finds herself infected. Young women of today go about unchaperoned, striving to imitate some "movie star" or her act of loving, dancing semi-nude, long before her age endows her with strength of character sufficient for restraint. Shining movie stars are the present day heroes rather than Columbus, Gladstone, Washington, Lincoln, Franklin, Webster or others of high character and achievement.

Literature and radio jokes are vulgar and suggestive. One glance at the news stand is sufficient. There you see pictures of women worse than nude, because of their suggestive positions. Stories are told of boys and girls who have made grave mistakes in life, yet their former sweethearts come forward and excuses are made and accepted, to suit the villain.

A large percentage of the negro population is infected. The negro transmits the disease readily and takes treatment carelessly. Many are of easy virtue and low morals.

#### SUMMARY AND SUGGESTIONS

1. Prevention, diagnosis and treatment of syphilis are scientific measures.

2. The medical profession holds in its possession scientific weapons which will prevent, cure and control the spread of syphilis, but does not have the power to control the public. This control must be given him by law.

3. A compulsory venereal disease card system should be law, rigidly enforced and honestly applied. Each child as well as older people should have a card history showing whether he has had the infection together with such information as type of disease, date contracted, treatment, whether cured or uncured. The state of the disease should be shown quarterly on this card after infection of patient and any physician giving a false report should be subject to having his license revoked. Any person evading examination and treatment should be subject to imprisonment until treated. No foreigner with a venereal disease history should be admitted into our country.

Some of you will raise your voices in horror at this idea, saying it will bring shame to light, but I contend you are wrong. No true gentlemen or lady will wish to impair or endanger the life or health of another person, simply for his or her momentary pleasure. The worthwhile type will gladly cooperate. Those who would evade the law deserve no respect. Therefore, they should be tagged and forced out into the open, just as they were before the day of salvarsan with their bald heads, their eyelashes gone, their scaly skin, mucous patches, and foul breath. It will cost no more to enforce such a law than it will to treat constantly the millions becoming infected.

If I can by these few words bring about a move to such an end my efforts will not have been in vain, and I will gladly give to my country the balance of life to protect our sons and daughters from such a loathsome disease, which they are prone to encounter, living in a cosmopolitan nation.



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## ANOTHER REASON FOR THE NEED OF A MEDICAL COORDINATOR

"The maintenance of the food supply of the army and of the civilian population of the country in a time of emergency is as important a question as any of the questions which may confront our leaders in times of rapid action and stirring events," *The Journal of the American Medical Association* for Aug. 17 says in an editorial on "Food and the War." It continues:

In World War I every foreign country early appointed a food commission to control this problem. Early in 1917 *The Journal* emphasized the advisability of appointing at once in this country an appropriate scientific body to advise on such questions. The experience of many a foreign country after the war showed how inefficient and futile had been some of the considerations given to these vital problems. In the Netherlands and Denmark people were deprived of important sources of vitamin A in order that butter might be sold to other countries. As a result, numerous children developed xerophthalmia (a disease of the eyeball) and similar conditions. In Germany the effects of malnutrition resulting from the blockade became apparent later in increased cases of tuberculosis among those who were children at the time of the war. Today German writers are emphasizing the necessity for con-

trol of nutrition as basic to the winning of any conflict.

It is no secret that problems of maintenance of the food supply are already serious in the warring countries. Indeed, Great Britain has begun a meatless ration for some of the days of the week, inclining largely toward a diet of eggs, milk and vegetables. In a recent communication a German writer points out that the German diet must depend considerably during the forthcoming months on bread and potatoes and that it is necessary under such circumstances that the bread be a whole grain bread. Recently British authorities have appointed a food commission to control food in the British army and among the British people, and already it has been decided to prepare a bread fortified with vitamin B<sub>1</sub> and calcium and to offer this for sale at a price similar to that for white bread. Moreover, British authorities have been urging cooperation of the Ministry of Food with the Ministries of Health and Agriculture to develop a national policy for control of the food supply.

In World War I the Surgeon General of the army early in the mobilization of the drafted army took steps leading toward the formation of a division in his office charged with the duty of advising on all questions relating to the nutrition of the soldier. The importance of nutrition was recognized early, yet the Quartermaster General was opposed to the establishment of nutrition officers in camp and it required six months before the Secretary of War authorized a food division for the army. The situation which confronts us today indicates the need for prompt action with regard to food and nutrition as a part of our current efforts toward preparedness. The National Research Council has a subcommittee on nutrition which is working on the problem of emergency and standard rations for the armed forces. The question of food for the soldier is still primarily in the division of the Quartermaster's office, but the Surgeon General of the army is equally concerned with the question of feeding the invalid soldier and with the feeding of troops for the prevention of illness. It is understood that two different divisions of the Advisory Commission on National Defense have set up subcoordinators who will be concerned with the problems of food. One of these divisions is that concerned with agriculture, the other that concerned with the consumer. There does not seem to be any evidence that any effort has been made to coordinate in any manner the work of these different advisory bodies, nor is it apparent from the evidence thus far available that modern dietetics and leading authorities in the field have been called into service.

The fundamental importance of good nutrition not only for those engaged in military services but for the population as a whole as the source of military units needs no argument in its behalf. What is needed is suitable coordination in Washington of all the various bodies that will be concerned with the nutrition of the nation. Such coordination can be brought about properly only by adequate representation of medicine, which includes scientific nutrition, in the Advisory Commission on National Defense.

## MEDICAL PREPAREDNESS QUESTIONNAIRE RETURNED BY ALMOST 80,000

"Almost 180,000 questionnaires for the submission of personal information to be associated with any mobilization of the medical profession that may be required have now been put in the mails and, as we go to press, almost 80,000 of these have been returned," *The Journal of the American Medical Association* for Aug. 17 announces in its Medical Preparedness Section.

It is interesting to observe the varying percentages of physicians in various states who have replied. Nebraska leads all other states with more than 71 per cent, whereas New Mexico, Mississippi and Tennessee have made the smallest return.

*The Journal* says that the record of returns on the questionnaires will be listed from week to week as it is highly important that there be a card in the files of the Committee on Medical Preparedness of the American Medical Association for every physician in the United States regardless of his ability to render military service.

---

## BIRTHS AND MARRIAGES

### BIRTHS

Dr. and Mrs. H. S. Howell of Lake City announce the birth of a son, Harry Slade, Jr., on August 22, 1940.

\* \* \*

Dr. and Mrs. Carlos P. Lamar of Miami announce the birth of a son, Carlos Patrick, on August 13, 1940.

### MARRIAGES

Dr. Lauren M. Sompayrac and Miss Lois Sybert Cleveland of Jacksonville were married at Jacksonville Beach on August 30. Dr. Sompayrac is secretary of the Duval County Medical Society.

---

## STATE NEWS ITEMS

Dr. W. M. Rowlett of Tampa returned the middle of September, after spending a month in New York and Boston, vacationing and visiting clinics.

\* \* \*

Dr. C. McK. Tyre of Eustis spent three weeks during August attending clinics at Free Hospital, Brookline, Mass.

Dr. William E. Ross of Jacksonville spent three weeks the early part of September visiting clinics in New York and Boston.

\* \* \*

Dr. J. C. Pate of Tampa returned recently from a trip north, which included visiting the Mayo Clinic.

\* \* \*

Dr. M. M. Hannum of Eustis was guest speaker at the local Rotary Club on July 26 and at the evening meeting of the Lions' Club on July 30. Dr. Hannum's theme was the relationship of the Lake County Medical Center to the people of the county.

\* \* \*

Dr. Waldo Horton of Winter Haven has returned from Boston where he did special work in dermatology and syphilology at the Massachusetts General Hospital and at two other clinics.

---

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## COMPONENT COUNTY SOCIETIES

### PINELLAS

Col. Neil E. Funk (M.D.) was principal speaker at the August 2 meeting of the Pinellas County Medical Society at which members of the Army and Navy Club and the St. Petersburg Dental Society were guests. Dr. Funk's subject was "Medical Service with the Triangle (blitzkrieg) Division."

At the second meeting of the month, held on the evening of August 16, Dr. H. M. Rogers discussed "Treatment of Bronchial Asthma."

\* \* \*

### ST. JOHNS

The St. Johns County Medical Society has gone "over the top," with 100 per cent of its dues paid for the current year. The officers of this society are: Dr. Donald T. Rankin, president; Dr. A. C. Walkup, vice president; Dr. V. A. Lockwood, secretary, and Dr. Reddin Britt, treasurer

DISTRICT MEDICAL MEETINGS: *Daytona Beach, Thursday, Oct. 3; Lake City, Friday, Oct. 4; Pensacola, Saturday, Oct. 5.*

## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

### Massive Dilatation of the Common Bile Duct:

Presentation of a Case with Report of Autopsy, JELKS, EDWARD, Jacksonville, South. *Surgeon 9*: 187-192 (March), 1940.

The correct diagnosis of massive dilatation of the common bile duct is rarely made before operation. In most of the cases symptoms develop before the patient is ten years old. Very few cases occur after twenty-five years. A total of about one hundred have been reported in the literature.

The usual symptoms are recurrent attacks of jaundice, pain in the upper portion of the abdomen and a palpable mass occurring during childhood or early adolescence. The condition occurs three times as often in females as in males. Most authors reporting cases consider the cystic dilation of the common duct as a congenital anomaly. From the standpoint of treatment, an anastomosis to establish as early as possible an adequate communication between the biliary tract and the intestine is most desirable. To prevent infection, excision of the cyst when possible by reducing stasis of bile is also done. A case is reported of a white girl, aged two, who had been normal until six months previously when jaundice appeared. At operation a large cyst three inches in diameter and five inches long was disclosed. She died soon after operation. A complete autopsy is appended.

### Bursitis About the Shoulder, WEILAND, ARTHUR H., and BURBACHER, CHARLES R., Coral Gables, *South Surgeon 9*: 26-33 (Jan.), 1940.

This is an excellent paper dealing with a very common affection of the shoulder joint. It should be thoroughly studied for its complete description of the anatomy of the shoulder joint, and for the clear exposition of what constitutes the shoulder bursa.

Commonly, the bursitis comes to the surgeon in the chronic stage, for in the acute cases home remedies are first tried. In the chronic case, and often in the acute, there are deposits of

lime in the bursa. These lime salts are usually deposited in the tendons about the shoulder and subsequently rupture into the bursa.

The etiology and pathogenesis are uncertain. Many theories have been advanced but all fall short of explaining the changes found. All agree that the deposit of calcium in the tendon is the beginning. Not infrequently the first pain is experienced after a twist or a blow, but this does not explain the presence of the deposit in the tendon, or why all similar twists or blows do not cause bursitis.

Treatment is usually surgical and subject to variations which depend upon the presence or absence of calcium and the preference of the operator.

## BOOKS RECEIVED

*Acknowledgment of books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.*

A DOCTOR'S HOLIDAY IN IRAN. By ROSALIE SLAUGHTER MORTON, M. D. Foreword by Hugh S. Cumming, Retired Surgeon General, U. S. A. A few years ago, Doctor Morton of Winter Park, Florida, concluded her autobiography, *A Woman Surgeon*, with these words: "I am going to Persia, or Iran as it is now called, to observe the amazing social changes there; electrifying modernity alongside age old traditions; people living next to one another illustrating every significant change during the past two thousand years. I am anxious to meet Mohammedan women and see how they, with the help of progressive men, are making a new concept of life." Doctor Morton went to Iran and returned with an amazing report of what she found there. This report she has put into a skillfully written, forceful narrative—an illuminating study of this embodiment of the new spirit that has risen in the Near and Middle East, *A Doctor's Holiday in Iran*. Cloth, illustrated, price, \$3.00. New York: Funk & Wagnalls Co., 1940.

\* \* \*

GRADUATE MEDICAL EDUCATION. By the Commission on Graduate Medical Education. This Commission was organized on December 4, 1937, in pursuance of a resolution adopted by the Advisory Board for Medical Specialties earlier in the same year. The chairman of the Commission states: "It was understood that the Commission would concern itself primarily with those problems which are common to all the specialty boards and organizations dealing with the different aspects of graduate medicine and would not attempt to accredit or evaluate facilities or to perform other administrative functions now carried out by the American Medical Association, the American College of Surgeons, the Association of American Medical Colleges and other administrative agencies." The Commission's activities were financed by the Rockefeller Foundation, the Carnegie Corporation, the Josiah Macy, Jr. Foundation, and smaller contributions from organizations and societies interested in this problem. This book comprises 6 chapters: Summary; The Internship; The Residency; Postgraduate Medical Education; The Specialty Boards; Postgraduate Medical Education in Great Britain; as well as appendixes giving pertinent information in table form and also data on "Some Existing Plans of Postgraduate Education." Cloth, pp. 304. Chicago: The University of Chicago Press, 1940.





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### PREVENTION OF TRAUMATIC INFECTION

Late deaths due to wounds are almost invariably caused by infection. Butt (Lancet, 1: 890, 1940) points out that any measure which will prevent or cure streptococcal infection and gas gangrene would greatly reduce this mortality.

Although chemotherapy is not a substitute for removal of damaged tissue or drainage of infected parts, it may nevertheless prevent the spread of infection to other tissues and, by inhibiting the multiplication of bacteria, assist the defensive mechanism to clear up the infection. The sulfanilamide drugs have more chance of being effective against invading bacteria if given immediately after trauma, and they may be administered both by mouth and locally into the wound. It is anticipated that by this means the extensive amputations commonly necessary in the last war may now be largely avoided.

There are many opportunities for the application of this method in civil life as well as in war. For convenient dosage, sulfanilamide, Lilly, is available in tablets and pulvules of several sizes.

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A new and highly efficient ultraviolet inspection lamp for cataract surgery, developed with the collaboration of Dr. Elliott B. Hague of Buffalo, N. Y., and described in the March 1940, issue of the *American Journal of Ophthalmology*, Page 317, has been announced by American Optical Company.

The new Hague lamp is a bulb-type, mercury vapor (ultraviolet) lamp with special filter, contained in a parabolic reflector with pistol grip for convenience in manipulating. Its transmitting characteristics are such that it projects a full beam of ultraviolet light of maximum intensity at 3650 Angstrom units which, if directed into the eye, will cause the crystalline lens to fluoresce.

The lamp may be used for the following purposes: (1) to identify cortical residue or remnants of capsule following extra-capsular cataract extraction; (2) to visualize the anterior capsule of the lens in intracapsular extraction; (3) to locate dislocated lenses; (4) to recognize fine, superficial, corneal abrasions stained with fluorescein without the use of a corneal microscope or slit lamp, and (5) to detect slight lesions of the lid, more or less imperceptible by ordinary light. Others uses are being investigated.

The lamp possesses the following advantages: (1) Safety. Rays produced include practically the useful, nonharmful waves. Biological experiments with rabbits' eyes, human eyes, and human skin have completely confirmed this. (2) Convenience. The lamp is light, compact, portable, easy to hold, and simple to manipulate. In comparison to a carbon arc, it gives a much more uniform and stable illumination. (3) Efficiency. The supply of fluorescing ultraviolet is greater than in previous lamps. More intense fluorescence is obtained which makes it possible to use the lamp under general illumination.

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## PRESIDENT'S MESSAGE

Attention is called to the *Bulletin*, a publication of the national organization which carries news of unusual interest to every auxiliary member. Feeling the need of an informed organization, approximately 24,000 strong, the National Board of Directors established a circulation department for an official publication, the *Bulletin*.

Through this medium every member of the organization can have in her own hands the latest news, information, and the program of the Auxiliary in its entirety. To accept the theme and objectives of the Woman's Auxiliary and not support them is dangerous in the face of today's extraordinary evolution of the nation's social and economic structure. In maintaining the democracy of medicine each physician's wife is a central pivot for expansion. The *Bulletin* will give a clear picture of what is going on, what is likely to happen, what can be done about it, and what the Auxiliary can do about it. This information will come from the leading authorities of the medical profession. Therefore, the *Bulletin* is indispensable to our growth and progress and it is the sincere hope of your president that each county president will urge every member to subscribe to it that we may keep well informed and be able to increase the activities of our own local units.

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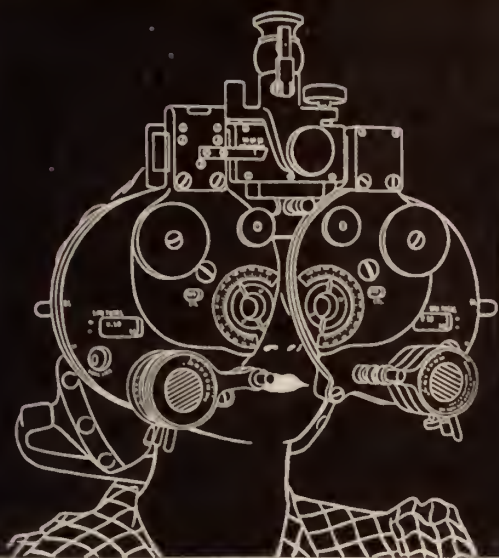
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SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century	Shaler Richardson, Jacksonville...	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:			
A-Northwest	B. A. Wilkinson, Tallahassee	Stewart Thompson, Jacksonville...	Pensacola, Oct. 5, 1940
B-North Central	William S. Nichols, Lake City...	" " "	Lake City, Oct. 4, 1940
C-Northeast	Robt. B. McIver, Jacksonville	" " "	Daytona Beach, Oct. 3, 1940
D-Southwest	W. C. McConnell, St. Petersburg	" " "	Dunedin, Oct. 31, 1940
E-South Central	A. M. Sample, Ft. Pierce	" " "	Ft. Pierce, Nov. 1, 1940
F-Southeast	Kenneth Phillips, Miami	" " "	Miami, Nov. 2, 1940
Gulama Medical Association	Samuel A. Gordon, Marion	D. L. Cannon, Montgomery	Mobile, Ala., Apr. 15-17, 1941
Georgia Medical Assn. of	J. C. Patterson, Cuthbert	E. D. Shanks, Atlanta	Macon, May 13-16, 1941
Florida—			
Capter, Am. College Phys.....	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami	Jacksonville, 1941
State Dental Society	E. B. Penn, Miami	E. C. Lunsford, Miami	St. Petersburg, Nov., 1940
St. of Derm. and Syph.	Alan Brown, Jacksonville	Lauren M. Sompayrac, Jacksonville	Jacksonville, 1941
East Coast Medical Association	I. M. Hay, Melbourne	J. S. Stewart, Miami	Miami, 1940
State Hospital Association	W. L. Shackelford, W. Palm Bch.	Mr. T. F. Alexander, Jacksonville	New Orleans, 1941
Am. of Industrial Surgeons	A. M. Bidwell, Tampa	T. H. Roberts, Lakeland	Jacksonville, 1941
Medical Postgraduate Course...	Turner Z. Cason, Jacksonville	Chairman	
St. of Ophthal. & Otol.	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami	Jacksonville, 1941
State Nurses Association	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Podiatric Society	Warren W. Quillion, Coral Gables	G. N. Leonard, Miami Beach	Fall, 1940
Pharmaceutical Association	Mr. S. F. Harris, Jacksonville	Mr. A. W. Morrison, Miami	
Public Health Association	A. B. McCreary, Jacksonville	E. M. L'Engle, Jacksonville	Tampa, Dec. 5-7, 1940
Podological Society	J. H. Lucinjan, Miami	E. M. Hendricks, Ft. Lauderdale	Jacksonville, 1941
Podiatry Surgeons' Association	Leland F. Carlton, Tampa	W. C. Page, Cocoa	Jacksonville, 1941
Tuberculosis & Health Assn.	Mr. E. M. Newald, Orlando	Mrs. C. R. Whitaker, Eustis	
Chahoochee Valley Med. Assn.	Frank K. Boland, Atlanta	Robert B. McIver, Jacksonville	Jacksonville, July 8-10, 1941
Coast Clinical Society	I. H. Dodson, Mobile	C. C. Rouse, Mobile	
Sec., Am. Cong. Phys. Ther.	E. C. MacCordy, St. Petersburg	Kenneth Phillips, Miami	Chattanooga, May, 1941
Eastern Derm. Assn.	Jack Jones, Atlanta	Howard Hailey, Atlanta	Atlanta, Ga., Sept. 1, 1940
Eastern Surgical Congress	Irvin Abell, Louisville	R. T. Beasley, Atlanta	Richmond, Va., Mar., 1941
Western Medical Association	Arthur T. McCormack, Louisville	Mr. C. P. Loran, Birmingham	Louisville, Ky., Nov. 12-15, 1940
Winnipeg River Medical Society	T. H. Bates, Lake City	H. S. Howell, Lake City	



## COMPONENT SOCIETIES BY DISTRICTS

COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
				Total	Paid	
Bay	Amsie H. Lisonby, M.D. Panama City	William C. Roberts, M.D. Panama City		11	100%	A-1-'42 W. C. Roberts, M.D. Panama City
Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1463 Pensacola	2nd Tuesday 8:00 P. M.	43	38	
Walton-Okaloosa	A. G. Williams, M.D. Lakewood	R. B. Spire, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	Northwest District (A) Pensacola Oct. 5, 1940
Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		8	7	
Franklin-Gulf	Thos. Meriwether, M.D. Wewahitchka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7	100%	A-2-'41 B. A. Wilkinson, M.D. Tallahassee
Jackson *Calhoun	W. R. Wandek, M.D. Marianna	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	12	10	
Leon-Gadsden-Liberty- Wakulla-Jefferson	Francis T. Holland, M.D. 208 Midyette-Moor Bldg. Tallahassee	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	40	38	
Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	14	8	B-3-'41 W. B. Nichols, M.D. Lake City
Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		9	5	
Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	7	6	
Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30	22	B-4-'42 J. L. Summerlin, M.D. Gainesville
Marion *Levy	Henry O. Dozier, M.D. 9 No. Magnolia St. Ocala	R. C. Cumming, M.D. Commercial Bank Bldg. Ocala	3rd Thursday 12:30 P. M.	24	100%	
Pasco-Hernando- Citrus	Wm. H. Walters, Jr., M.D. Lacoochee	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	100%	North Central District (B) Lake City Oct. 4, 1940
Duval *Clay, Nassau	Chas. B. Mabry, M.D. 439 St. James Bldg. Jacksonville	Lauren M. Sompayrac, M.D. 459 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	179	178	C-5-'41 R. B. McIver, M.D. Jacksonville
St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10	100%	N. E. District (C) Daytona Beach Oct. 3, 1940
Putnam	G. M. Ziegler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	12	11	C-6-'42 Maximilian Stern, M.D. Daytona Beach
Volusia *Flagler	L. V. L. Brown, M.D. DeLand	R. L. Miller, M.D. 258½ S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	42	35	
Hillsborough	John R. Bolling, M.D. 1207 First Nat. Bk. Bldg. Tampa	James S. Grable, M.D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	112	100	D-7-'41 W. C. McConnell, M.D. St. Petersburg
Manatee	M. M. Harrison, M.D. Professional Bldg. Bradenton	W. E. Wentzel, M.D. Box 245 Bradenton	3rd Tuesday 7:00 P. M.	14	100%	
Pinellas	John A. Herring, M.D. 259 Third St., No. St. Petersburg	W. C. McConnell, M.D. 313 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	105	100%	
Sarasota	Millard B. White, M.D. 151 S. Pineapple Ave. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	16	11	Southwest District (D) Dunedin Oct. 31, 1940
DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	100%	D-8-'42 H. V. Weems, M.D. Sebring
Lee *Collier, Hendry	A. S. Byle, M.D. 311 2nd St. Fort Myers	Fred D. Bartleson, M.D. Fort Myers	3rd Friday 7:30 P. M.	14	100%	
Polk	Henry Fuller, M.D. Mulberry	Jere W. Annis, M.D. Box 1921 Lakeland	2nd Wednesday 1:00 P. M.	62	59	
Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Wednesday	12	11	E-9-'42 J. R. Chappell, M.D. Orlando
Lake *Sumter	W. L. Ashton, M.D. Umatilla	Oliver Emerson, M.D. Tavares	1st Thursday 12:30 P. M.	18	14	
Orange *Osceola	Chas. J. Collins, M.D. 209 Exchange Bldg. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	85	84	
Seminola	Wade H. Garner, M.D. Sanford	Douglas G. Scott, M.D. 313 N. Park Ave. Sanford	2nd Monday 7:00 P. M.	13	100%	South Central District (E) Ft. Pierce Nov. 1, 1940
St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	19	100%	F-10-'41 A. M. Sample, M.D. Ft. Pierce
Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	M. C. Chamberlain, M.D. 730 Sweet Bldg. Ft. Lauderdale	4th Wednesday 8:00 P. M.	38	100%	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
Palm Beach	James H. Pittman, M.D. Box 602 W. Palm Beach	C. Jennings Darrick, M.D. Box 574 W. Palm Beach	4th Monday 8:00 P. M.	64	100%	
Dade	Joseph S. Stewart, M.D. 525 duPont Bldg. Miami	Frans Stewart, M.D. 525 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	312	261	F-12-'41 Kenneth Phillips, M.D. Miami
Monroe	Harry C. Galey, M.D. 137 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	S. E. District (F) Miami Nov. 2, 1940

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# BRIEF HISTORICAL NOTES ON MEAD'S CEREAL AND PABLUM

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**H**AND in hand with pediatric progress, the introduction of Mead's Cereal in 1930 marked a new concept in the function of cereals in the child's dietary. For 150 years before that, since the days of "pap" and "panada," there had been no noteworthy improvement in the nutritive quality of cereals for infant feeding. Cereals were fed principally for their carbohydrate content.

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(1) As little as one-sixth ounce of Mead's Cereal supplies over half of the iron and more than one-fifth of the vitamin B<sub>1</sub> minimum requirements of the 3-months-old bottle-fed baby. (2) One-half ounce of Mead's Cereal furnishes all of the iron and two-thirds of the vitamin B<sub>1</sub> minimum requirements of the 6-months-old breast-fed baby.

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month instead of at the sixth to twelfth month as was the custom only a decade or two ago.

In 1933 Mead Johnson & Company went a step further, improving the Mead's Cereal mixture by a special process of cooking, which rendered it easily tolerated by the infant and at the same time did away with the need for prolonged cereal cooking in the home. The result is Pablum, an original product which offers all of the nutritional qualities of Mead's Cereal, plus the convenience of thorough scientific cooking.

During the last ten years, these products have been used in a great deal of clinical investigation on various aspects of nutrition, which have been reported in the scientific literature.

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of the

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VOLUME XXVII  
No. 4

Jacksonville, Florida, October, 1940

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### CONTENTS

Some Observations on Coronary Occlusion, R. H. Knowlton, M. D., St. Petersburg	177
Correlating History, Clinical and Electrocardiographic Findings in the Diagnosis of Coronary Occlusion, T. Z. Cason, M. D., Jacksonville	180
The Aftermath of Coronary Occlusion, E. Sterling Nichol, M. D., Miami	182
Surgical Treatment of Essential Hypertension, George D. Lilly, M. D., Miami	188
Anesthesia J. Braden Quicksall, M. D., St. Petersburg	191
Editorials: Scientific Program; Medical Preparedness	197
District Meetings "D", "E", and "F"	198
Medical Meetings are Open to Military Doctors	199
Warnings	199
Medical Preparedness Committees	199
Births and Marriages	200
State News Items	200
Component County Societies	201
Abstract Department	202
Books Received	204
Advertisers' Notes	206
Woman's Auxiliary	208
State and Sectional Meetings	209
Component Societies by Districts	210

### NEXT SESSIONS

American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, Louisville, Ky., November 12-15, 1940

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## STUDIES IN THE AVITAMINOSES



This page is the tenth of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the September 14 issue of The Journal of the American Medical Association.



Photograph courtesy of C. P. Rhoads, M. D., Memorial Hospital for the Treatment of Cancer and Allied Diseases, New York City.

### The Dermatitis of PELLAGRA

The skin lesions of pellagra are considered one of the diagnostic signs; they are seen on the hands, neck, under the breasts, on the perineum, and on the legs. They usually are bilateral and are sharply demarcated from the surrounding normal skin. At first the involved area becomes erythematous and tender, resembling a mild sunburn. The skin is tense and swollen; itching and burning may be severe. At this stage vesicles or bullae frequently appear. After a period of weeks or months, the edema subsides, the erythema disappears, and the involved skin may assume a more normal appearance. Residual pigmentation persists, however, especially about the hair follicles.

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Illustration courtesy of Henry Field, Jr., University of Michigan Medical School, Ann Arbor.







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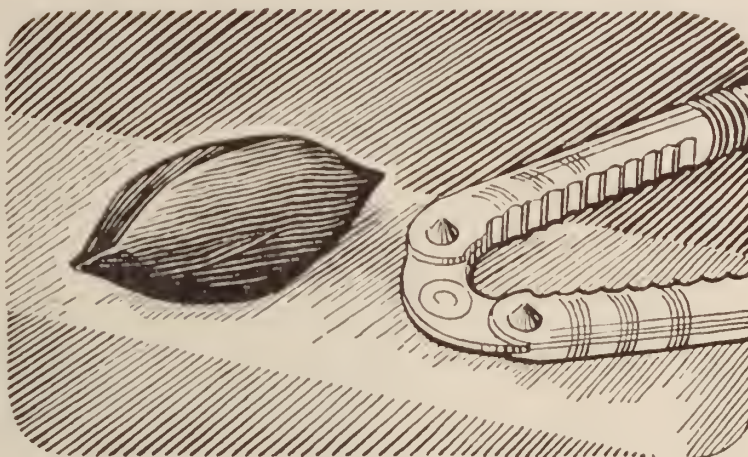
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S. F. 2	Surgeon's Report	F. I. C. 8	Employer's Notice to Waive Exemption
S. F. 3	Employer's Supplementary Report of Injury	F. I. C. 9	Final Medical Report
S. F. 4	Agreement as to Compensation	F. I. C. 10	Employee's Notice of Injury to Employer
S. F. 5	Final Compensation Settlement Receipt	F. I. C. 11	Election of Employee where a Third Party is Involved
F. I. C. 6	Notification of Securing Compensation	F. I. C. 12	Notice to Controvert Payment of Compensation
F. I. C. 7	Employer's Notice to Reject		

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## HEART DISEASE (Symposium)

### SOME OBSERVATIONS ON CORONARY OCCLUSION

R. H. Knowlton, M. D.  
St. Petersburg

Dr. James B. Herriek in 1912 and again in 1918 brought the matter of coronary occlusion to the attention of the medical profession. Since then every aspect of the subject has been covered by so many excellent papers, some of them by members of this Association, that one may well question the advisability of any more. If one thinks that he has found something new on the subject, it is well to consult the earlier literature before announcing the fact. Still, there are points which can well be emphasized for, in spite of all that has been said and written, the diagnosis is at times difficult and errors of commission and omission have been made by the most enlightened.

Two preliminary statements might be made regarding the nomenclature: first, that the symptoms of coronary occlusion are those produced by myocardial ischemia (usually followed by necrosis) due to the blocking of the artery supplying the part; second, that myocardial infarction may also be caused by coronary narrowing without actual closure of the vessel. This is especially true when the circulation is further embarrassed by other conditions, such as pulmonary embolus, aortic stenosis or severe anemia<sup>1</sup>. With this understanding, the original term of coronary occlusion is used in this paper.

Pain in the chest occurring in women has always given me less concern than similar pain in men. I have also been impressed by the fact that coronary occlusion is relatively infrequent in women but that when it does occur the prognosis is distinctly worse than in men. Levy and Boas<sup>2</sup> found that coronary artery disease is about five times more frequent in men than in women. Willius<sup>3, 4</sup> in commenting on this discrepancy, suggested an interesting explanation based on the observations of Leary<sup>5</sup> in 1934 regarding the role played by disturbed lipid

metabolism in producing coronary artery disease. Supplementing this basis by results of his own studies, he suggested that there is some reason to believe that women are endowed with a more nearly perfect lipid metabolism than men and can dispose of excess lipid without depositing it in the arterial walls.

In cases of the acute coronary occlusion with its terrific pain, pallor, sweating and shock the condition is readily recognized. There are, however, other instances in which the closure appears to come on gradually, the symptoms are much milder and in which, in fact, there may be no pain at all. In such cases the physician is called to see a patient with prolonged substernal pain not following effort and often occurring at night. The symptoms suggest that a coronary occlusion has taken place, but subsequent events show that such is not true. These attacks of pain may be repeated over a considerable period, and when at length a complete closure does occur the patient may note little difference from the pain in previous attacks. At this time, however, slight fever and leukocytosis as well as definite electrocardiographic changes are usually noted. In this sort of case the physician has to use his best powers of persuasion in order to keep the patient in bed, because he may feel perfectly well and be free from the tormenting pain. It would appear that the muscle is now dead and gives rise to no more pain impulses, just as when the nerve in an aching tooth dies, the pain ceases.

Much has been written about the painless occlusion; undoubtedly it does occur and is many times unrecognized. One case was observed in which an unexplained rise in temperature in an anginal subject was the first clue to the diagnosis. One must realize, however, that people differ considerably in regard to their concept of pain, as well as in their sensitivity to it. Some may have a feeling of weight or oppression in the chest which they do not call pain. There may be pain equivalents, such as a choking sensation or a feeling of constriction in the neck, sudden dyspnea or inexplicable congestive failure<sup>6</sup>.

Acute coronary occlusion with myocardial infarction may be entirely painless for quite

A symposium on Heart Disease was presented before the Sixty-seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940. It comprised the first three articles published in this Journal.

another reason, namely: that the patient is under full surgical anesthesia at the time of the attack. The following instance was observed last year:

The patient was a 60 year old woman without known heart disease. She was undergoing a spinal fusion, a procedure which would not be expected to produce any great amount of shock. Toward the latter part of the operation, it was noted that the patient was doing badly. The anesthetist stated she had been all right up to a moment or two before, when suddenly the respiration became poor, some cyanosis appeared and the pulse became weak, rapid and irregular. The condition was assumed to be surgical shock; oxygen and the usual stimulants were given. The operation was completed; the patient was put to bed in fair condition, and the treatment for shock was continued. During the next two days her condition did not change appreciably; the pulse continued to be weak and rapid, and the blood pressure remained at a low level, (90 systolic, 60 diastolic). On this account and because of the fact that the patient did not appear to be in surgical shock, a coronary occlusion was eventually suspected. On the third operative day an electrocardiogram showed a low voltage and a tracing typical of a posterior infarction. Ten days later the patient showed symptoms of myocardial failure, from which she recovered satisfactorily with the aid of digitalis; she was eventually discharged well as far as the cardiac condition was concerned.

One may speculate as to whether similar coronary accidents may not occasionally occur on the operating table and whether some cases of sudden death or of so-called surgical shock may not in reality be cases of coronary occlusion. Master<sup>7</sup> reported 35 instances of post-operative coronary occlusion which were not associated with any particular type of anesthesia. He considered of special significance the fact that in the medical wards during the same eight years only 4 cases of coronary occlusion occurred in contrast to the 35 and probably more in which the condition followed surgical procedure. Brumm and Willius<sup>8</sup>, on the other hand, in observations on a series of 257 patients with severe coronary disease, who underwent necessary surgical procedures, noted that only 11, or 4.3 per cent, died from cardiac causes.

Coronary occlusion simulates a great variety of conditions in other organs, making the diagnosis at times a difficult one. Often the persistent nausea and vomiting commonly observed suggest an acute gastric disorder, which in itself may make a patient violently ill and cause a drop in blood pressure. The differential diagnosis sometimes cannot be made at once, especially in the cases of those patients known to have heart disease. Only subsequent events may distinguish between the two. Coronary occlusion used to be known as acute indigestion, but one must not make the mistake of calling all gastric disorders coronary thrombosis.

When the pain radiates downward, coronary occlusion may simulate various abdominal conditions such as perforated ulcer, pancreatitis or disease of the gallbladder. Resemblance to the latter condition is further increased by the occasional occurrence of jaundice, and in one instance I have noted bilirubinuria. In that case the early appearance of a pericardial friction rub made the diagnosis clear. Acute temporary enlargement of the liver may be confusing if one does not remember that it is an occasional finding in association with coronary occlusion.<sup>9</sup>

Sometimes the symptoms are referred more particularly to the lungs, such anomalies occurring as acute dyspnea, especially at night, rales in the bases of the lungs or even acute edema. Dr. Pincoffs<sup>10</sup> has called attention to the fact that coronary occlusion should be suspected in cases of atypical bronchitis and pneumonia, when disproportionate changes in the blood pressure or unusual dyspnea occur. It is stated that in a large educational hospital the condition most commonly diagnosed inaccurately was pulmonary infarction. The signs and symptoms of this abnormality may sometimes so closely resemble those of coronary occlusion as to make the diagnosis puzzling. However, a mistake does no great harm since the treatment of the two conditions is nearly identical.

Now that physicians have become "coronary conscious", it is probable that the diagnosis of occlusion is made far too often. Dr. Herrick<sup>12</sup> recorded some 30 conditions that he had seen mistaken for acute coronary thrombosis, and among them were the various forms of arrhythmia. That a coronary accident may initiate an attack of acute auricular fibrillation is well known, and it has been said that one may safely treat such a paroxysm in a patient with arteriosclerotic heart disease as though the attack were due to coronary thrombosis, until it is proved otherwise<sup>13</sup>. However, the fibrillation itself in an anginal subject may closely imitate an acute coronary closure, as illustrated in the following case report:

A man known to have coronary sclerosis and moderate intraventricular block was brought into the hospital suffering intensely from prolonged substernal pain. He was pale and sweating and had a rapid and irregular pulse, together with a lowered blood pressure. The condition was judged to be acute occlusion; treatment with morphine was given and repeated and oxygen administered without appreciable benefit. Aminophylline and dextrose were then given intravenously with almost dramatic relief of the pain. At the same time the fibrillation stopped, and the pulse became regular and remained so.



There was no subsequent fever, leukocytosis or change in the electrocardiogram to indicate coronary occlusion.

It cannot be said definitely that the aminopylline stopped the fibrillation, but it does seem evident that the fibrillation with the consequent inefficient filling of the coronary arteries was responsible for the pain, which disappeared when normal rhythm was resumed. Two other such cases have been observed in both of which the condition was coronary artery disease; in one the patient was an elderly woman who had a severe pain at every onset of fibrillation. White and Camp<sup>11</sup> in 1932 reported 3 cases in which definite prolonged attacks of anginal pain requiring morphine for relief were brought on by paroxysmal auricular fibrillation.

Many people who present themselves for treatment complain of having recently suffered from a precordial pain; in their cases one would like to rule out the possibility of a coronary accident. It is known that fever and increase of leukocytes are transient symptoms and that either one may be absent<sup>15</sup>. It is not practicable to take an electrocardiogram in every case and, besides, a single negative tracing does not rule out coronary thrombosis. The sedimentation rate, on the other hand, is practically always increased after the first few days and remains rapid for some time. The determination of that rate is a useful test, for a normal rate is good evidence that there has been no recent occlusion, and it can be easily made in the office without elaborate apparatus<sup>16, 17</sup>. It has also been frequently observed that the sedimentation rate offers a reliable index of the healing process of the infarction and that in each instance the patient should be kept in bed until his condition becomes approximately normal<sup>18</sup>, or until there is no further change. It is well to make the test as early in the disease as possible in order that the patient's normal rate may be established before necrosis sets in. Otherwise the test is of less value, since patients with various pathologic conditions, especially rheumatoid arthritis, have a constantly increased rate.

The treatment of acute coronary occlusion is fairly well standardized: absolute rest, oxygen and morphine. Practically all authorities advise the free use of morphine to combat the terrific pain, and no doubt at times large amounts may be necessary to give relief. While the drug is indispensable in most cases, there are times when the symptoms are so mild that only one

small dose is needed. Years ago before the knowledge about and recognition of coronary occlusion had penetrated to the rank and file of physicians, there were those who preached that morphia was a dangerous drug in the treatment of angina pectoris and apt to cause sudden death. It is now known that the physician rarely observes a case of true angina pectoris because the pain has gone before he arrives. The prolonged pain formerly called angina pectoris was in reality coronary occlusion, from which the patient frequently dies whether he is given morphine or not; cases have been observed in which the patient, although at last completely relieved of his suffering by morphine, unexpectedly died. It is not necessary to abolish the last lingering sense of discomfort. Wolferth<sup>19</sup> stated that the use of morphine is sometimes overdone; he suspected, he said, that the last unnecessary dose precipitates death. G. K. Fenn<sup>20</sup> also suggested that for aged patients the dosage of morphine be kept at a minimum by the use of papaverine and atropine. After the pain is relieved, the restlessness can be dealt with quite as well by phenobarbital sodium as by morphine.

Finally, the physician should have an optimistic outlook regarding coronary occlusion and should assure the patient that it may be quite possible for him to continue a successful and useful life. It is a serious mistake to instill in him the fear that another attack will mean sudden death, particularly when the diagnosis may be mistaken. Hearts may be damaged beyond repair, in which event death occurs shortly, but the younger and more vigorous hearts continue to go on functioning through the years.

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## CORRELATING HISTORY, CLINICAL AND ELECTROCARDIOGRAPHIC FINDINGS IN THE DIAGNOSIS OF CORONARY OCCLUSION

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Jacksonville

The use of instruments of precision to determine the site at which pathologic changes are taking place and the extent of the disease is to be encouraged, particularly when the condition may be as obscure as coronary occlusion. It must never be overlooked, however, that the use of delicate instruments requires considerable care and the interpretation of findings necessitates special training on the part of the operator if any degree of accuracy is to be attained. I think that at times some of these newer methods of diagnosis are not unlike Pandora's box.

The electrocardiogram has been of inestimable value in teaching us about disease of the heart, at first with relation to nerve conduction of the heart muscle and in more recent years with reference to occlusion of the arteries of the heart.

In some cases, as I shall illustrate, the history

and physical examination and a single electrocardiogram will be sufficient to make a positive diagnosis. In other instances the electrocardiogram is only confusing. It must be remembered in dealing with coronary occlusion as with all other diseases that the history and clinical findings are of first importance; that if electrocardiographic tracings are solely relied upon, they may cause many difficulties. I shall attempt to illustrate my various points with clinical history, physical findings, and electrocardiographic tracings.

### CASE REPORTS

Case 1. L. E. was a 48 year old professional man. His father died of cerebral hemorrhage at the age of 76; his mother died of cardiac dilatation, at 63. His personal history did not contribute information of importance.

In the late afternoon of January 6, 1938, the patient left his office and was getting into his car to drive home when he experienced a sudden pain across the lower anterior portion of the chest, slightly more pronounced on the left than on the right. There was an intense desire to belch. As he was passing the hospital the pain became so severe that he felt he could not go on and came into the waiting room. I saw him and placed him in bed immediately. The pain was intense and was only partially relieved by morphine. Altogether it continued for several hours. When the patient was admitted to the hospital the blood pressure was 210 systolic, 130 diastolic, and it continued at these points for six hours, when the systolic pressure began varying from 190 to 200. The following morning the blood pressure was 155 systolic, 95 diastolic. The patient had marked abdominal distention which lasted for five days.

The first electrocardiogram was taken on the morning of January 7, the day after admission. The interpretation of this tracing was that in spite of the slight inversion of lead 2, the tracing was not characteristic of coronary thrombosis even though such a diagnosis had been made clinically. A second tracing was made on January 10, which was interpreted as follows: "Marked change over the previous tracing, making coronary occlusion almost certain, though there are many things which keep this from being a typical coronary thrombosis." Noticeable changes had taken place in the T wave in lead 1, also in the T wave in lead 4 which was now markedly inverted. The next tracing was made February 3 when the QRS 1 was slightly notched, T 1 and T 2 less deeply inverted, T 3 less wavy, and T 4 of lower amplitude. The tracing made on March 14 indicated a return toward the normal. The last tracing made on May 6 showed still further change toward the normal. The T wave was still slightly inverted in lead 3.

*Comment.* This patient had sudden pains across the chest which lasted approximately six hours and were only partially relieved with opiates. There was marked distention of the abdomen with passage of blood from the kidneys. (The sedimentation rate markedly increased; the white blood count which was normal on January 7 and 10, was 9,500 on January 11) Serial electrocardiograms were necessary for diagnosis.

Case 2. A. C. K., a 62 year old physician came in for examination because of hypertension on May 3, 1938. His father had died of paralysis at the age of 57; his mother had died of paralysis when 68 years old. On examination the blood pressure was 192 systolic, 104 diastolic. At the request of this patient an electrocardiogram had been made the previous March 31 which showed an essentially normal tracing. Being a physician he did not get back for the physical examination he had requested until May 3.

The patient was admitted to the hospital at 10:20 a. m. March 11, 1939. He had been experiencing some sub-sternal pain for the past two or three days and this had become severe in the early morning of the day of admission. He was more comfortable when he entered the hospital. An electrocardiogram was made a short time after admission which was interpreted as follows: "There are marked changes since the previous tracing. RT 1 is depressed and T 1 is diphasic. RT 2 and 3 are markedly elevated. RT 4 is markedly depressed. These changes are quite dramatic and probably represent a severe acute coronary thrombosis." The patient died at 2:20 o'clock in the afternoon.

*Comment.* This was a case of hypertensive heart disease over a period of several years. The tracing taken just one year before death was essentially normal.

Case 3. H. M., aged 47, was admitted to the hospital at 9 p. m., March 31, 1939, when his blood pressure was 150 systolic, 110 diastolic. He had had diabetes for several years; he also had hypertensive heart disease and angina pectoris. Prior to admission to the hospital he had suffered from acute pain similar to the attacks of angina but not relieved by nitroglycerin or by the usual means of treatment. Morphine was administered from which he received relief. The blood pressure the following morning was 100 systolic, 80 diastolic. A tracing indicated definitely an acute coronary thrombosis of the left coronary artery, anteriorly.

*Comment.* With this history, a patient of this age, and a tracing so definite, a diagnosis could be made from a single electrocardiogram.

Case 4. Dr. G. V. M., aged 86, entered the hospital on September 23, 1939. The first tracing in our series which was made in April 1927, when the patient was 74, was within normal limits. A second tracing, made in June 1929, when he was 76, was also normal. The night before admission, on September 22, 1939, the patient had suffered from severe pain in the chest. A tracing made two days after he entered the hospital was interpreted as follows: "1. Auriculoventricular heart block; 2. coronary heart disease." A further note was made that this tracing did not indicate a coronary thrombosis and that another tracing should be done in a few days. The next tracing, made three days later, indicated definitely an acute coronary thrombosis. Decided changes were noted in leads 1, 2, and 4.

*Comment.* The patient's age and period elapsing between the onset of symptoms and the time the tracing became positive were taken into consideration in making this diagnosis. The blood pressure was 85 systolic, 55 diastolic on admission, and 128 systolic, 78 diastolic, on April 28 when the patient was discharged.

Case 5. W. P. H., a 40 year old American ship's mate, was first seen in Riverside Hospital on July 4, 1939, at which time he complained of precordial pain of several hours' duration, followed by collapse, weakness, and profuse perspiration. The blood pressure was 155 systolic, 90 diastolic; temperature 97.2 F., pulse rate 82; respiratory rate 15. The patient was hospitalized and given general supportive treatment with morphine as needed for relief of pain. On the second day in the hospital the temperature rose to 100.2 F.; there was some congestion at the bases of both lungs; the blood pressure was 150 systolic, 90 diastolic. He had a low grade fever for several days and on the seventh hospital day the blood pressure had fallen to 112 systolic, 75 diastolic. He was kept at complete rest for four weeks after which time he was allowed to sit in a chair for a short time each day. The clinical diagnosis was coronary occlusion.

A tracing made on July 5 showed changes from the normal which were probably acute but not typical of coronary thrombosis. There was sino-auricular tachycardia. The next tracing, made on July 10, proved helpful. On this tracing RT 1 was less depressed, RT 3 less elevated, and RT 4 less depressed. The pulse rate was now 94 as against 116 at the time of the first tracing. These changes which had occurred since the first tracing were minor but definite. They suggested an acute cardiac process.

On the third tracing, made July 25, there were marked changes as evidenced by the deep inversion of T 2 and T 3, both being Pardee in type. These changes were now characteristic of coronary thrombosis with occlusion of the right coronary artery. This being a posterior infarction the prognosis was somewhat better than it would have been in anterior infarction.

A tracing made on August 9 showed that some changes toward the normal had taken place since the previous tracing. T 2 was not so deeply inverted.

Case 6. Mrs. W. F. S., aged 64, was first seen on January 6, 1938, at which time she complained of pain in the epigastrium and loss of weight. The blood pressure at this time was 134 systolic, 80 diastolic. The physical examination did not yield observations of importance. At this time an electrocardiogram showed a left axis deviation; otherwise the tracing was within normal limits. The patient was seen again on February 15, 1940, when the blood pressure was 175 systolic, 104 diastolic. She was having precordial pain from time to time on exertion and she was not sleeping well. A tracing was made on March 18, 1940 which was interpreted as follows: "Since the previous tracings there have been slight changes. Tracing is indicative of coronary disease but there is no evidence of coronary thrombosis." The next tracing was made March 23, 1940 when it was noted that there were no essential changes from the one previously made. The patient was admitted to the hospital on April 12 after having had four attacks of severe anginal pain during the night. Pain was relieved by nitroglycerin. She was apprehensive and exhausted. The blood pressure was 180 systolic, 95 diastolic, but during an attack it rose to 195 systolic, 105 diastolic. On the morning of April 16 she suffered a severe attack of anginal pain which lasted several hours and was only partially relieved by opiates. There was considerable shock. The temperature was normal on the morning of the 16th, pulse rate 98, respiration irregular but charted as 14. The blood pressure had dropped to 100 systolic, 70 diastolic. Because of shock no effort was made to take a tracing on this date. On April 17 a tracing was made with the following interpretation: "Since the last tracing two days ago there have been marked changes, chiefly in the QRS complexes, RT segments and T waves. QRS 1 is of much lower amplitude and is slurred. QRS 2 is iso-electric. RT 1 is elevated. RT 2 is slightly elevated. RT 3 is very slightly depressed. RT 4 is markedly elevated. T 1 and T 2 have a very slight late inversion. These changes are indicative of an early thrombosis probably of the left coronary artery (anterior infarction). Repeated tracings are desirable."

The patient's condition gradually grew worse. On April 17 the temperature rose to 102.2 F. and the blood pressure dropped to 80 systolic, 60 diastolic. A tracing made on this date was interpreted as follows: "There have been further changes since the tracing of 4-18-40. QRS 1 is widened and more slurred. QRS 2 is widened and notched. QRS 3 is more deeply inverted and widened. RT 1 is slightly more elevated and T 1 is becoming more inverted and Pardee in type. RT 2 is more elevated and T 2 is more upright. RT 4 is still greatly elevated and T 4 is somewhat more rounded and slurred. This tracing further confirms the diagnosis of acute coronary thrombosis of the left coronary artery (anterior infarction)." The temperature continued to rise and the patient died late that same day.

*Comment.* This patient was seen approximately two years before her death when the blood pressure was normal and there were no other findings of importance. The first symptoms of any serious coronary changes did not occur until in February 1940. Apparently the electrocardiogram picked up the changes as soon as they were evident clinically. When the patient entered the hospital, there was a definite question in our minds as to whether she had had a coronary occlusion before admission. The clinical examination did not suggest this and neither did the tracing which was made on the day of entrance.

Case 7. J. R. McG., a 53 year old ship's captain came to the hospital at 3 p. m. January 1, 1939. At 6 p. m. the day before he was seized with pain in the abdomen just



below the xiphoid process, extending to both shoulder blades. There seemed to be a viselike pain up against the heart, but no true precordial pain or pain in the left arm. The patient took about a quart of hot soda water without relief. Feeling bloated, he tried to belch but this did not lessen his distress. Hot salt water caused him to vomit and he obtained some relief. He had pain throughout the night and could not take a deep breath. On his admission to the hospital the temperature was 98 F., pulse rate 80 respiratory rate 18, blood pressure 120 systolic, 80 diastolic. The physical examination did not yield any other observations of importance. The blood studies were entirely negative; the icterus index was normal, and the stool negative. The sedimentation rate was 8 mm. in thirty minutes, 18 mm. in one hour. The following comment was made by Dr. Merritt after the history had been taken and the physical examinations made: "The history here is fairly clear-cut, though one should be on his guard for coronary thrombosis." I saw this patient with Dr. Merritt and Dr. Drew, who referred him, on the morning after admission. We concurred in Dr. Merritt's original opinion but concluded that coronary thrombosis must be ruled out. An electrocardiographic tracing was made on the morning of January 3 with the following interpretation: "The slight changes in P 2 and T 2 and the slight prolongation of the PR and QT interval make this a borderline tracing. They are suggestive of early arteriosclerotic changes. I do not believe that they represent acute changes, and this tracing is not indicative of coronary thrombosis." This patient was discharged from the hospital on January 3 after having been given a diet and careful instructions as to his future activity. He returned on January 18 for another tracing which indicated no changes from the previous one. This patient had early arteriosclerotic changes.

#### SUMMARY

Histories with brief clinical data and an explanation of electrocardiograms have been given for 7 patients. These indicate that:

1. Several days may elapse after there is clinical evidence of a coronary occlusion before the electrocardiogram gives any evidence of its occurrence.
2. The electrocardiogram may be positive within a few hours after the accident becomes evident.
3. There is still an occasional case in which a condition simulating coronary thrombosis occurs which may be due to acute gastric disorder caused by cholecystitis or cholelithiasis.
4. The electrocardiogram may, as in one of these cases, be a good indication as to the prognosis; on the other hand, it may be of little value.
5. The electrocardiogram may show changes as early as the clinical symptoms; again the symptoms may precede the electrocardiographic evidence by several days.
6. Finally, the history and clinical findings should be considered along with the electrocardiogram and a diagnosis should not be based on an electrocardiogram alone.

## THE AFTERMATH OF CORONARY OCCLUSION

E. Sterling Nichol, M. D.  
Miami

The clinical features of acute coronary occlusion have been so often reiterated in the medical literature in recent years that most physicians are able to diagnose the condition in the average case, but the *subsequent* clinical status of such patients is not so clearly defined in some quarters, which warrants the present brief review.

#### PATHOLOGY

Occasionally acute coronary occlusion is not accompanied by infarction in the myocardium, and in such instances there is no residual cardiopathy other than the obstruction in the involved artery. Ordinarily, however, acute occlusion is attended by myocardial infarction and the extent of the pathologic changes found in the heart, months or even years after the healing has taken place, depends on the magnitude of the area of infarction. A small infarct in the presence of ample collateral coronary circulation may leave no visible scar, only microscopic areas of fibrosis being found in the myocardium. A large infarct will leave a scar of considerable size which may in some instances become so thin and stretched that a saccular dilatation may be formed and, especially during systole, there may be definite bulging of such a scar beyond the line of the epicardium. This is called a cardiac aneurysm, and its site is usually at the apex of the left ventricle. Pericardial adhesions may cover the aneurysm lending support to the myocardium at this point, and sometimes thrombi form within the aneurysmal sac. Rupture of a ventricular aneurysm occurs rarely, much less often than rupture of the myocardium during the acute stage of infarction. If the infarct involves the interventricular septum, the auriculoventricular bundle may be permanently injured.

#### SYMPTOMS AND SIGNS

Surprisingly often, patients become symptom-free following recovery from acute coronary occlusion, and can take an active part in life for a varied period of years until they encounter another attack. As time goes on, however, most patients are constantly or intermit-

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tently reminded of the injury which the heart has suffered in several ways. Substernal or precordial pain is frequently noted. This may be so mild that it is frequently ignored, except in those whose attention has become riveted on the heart because of a former attack. Yet such vague pain may have real significance and warrants due clinical respect. At times there may be only precordial aching, or aching in the arms (chiefly the left) or in the interscapular area; or the substernal pain may be referred to these sites or even to the upper part of the abdomen. Whether mild or severe, the discomfort is usually induced by physical exertion, particularly walking; on the other hand, it may come while the patient is at rest and may even awaken him from sleep. Pain is sometimes provoked by a hearty meal and it is more easily induced by exercise if the patient has recently eaten. Emotional strain or discord of any sort tends to bring distress, and in some persons is the prime exciting factor. The pain is usually of brief duration, but in some instances it tends to drag on all day, once it has been initiated, only partly dulled by nitroglycerin or other medication. Full blown terrifying attacks of angina pectoris may develop, attended by *angor animi*, severe sweating, and weakness, but in my experience such classic attacks are observed rather seldom. If severe angina precedes the acute occlusion, the attacks may be milder afterward, although not necessarily so.

Fatigability is a common complaint and occasionally is the sole symptom during the "coronary aftermath". It is noted that tasks formerly performed without fatigue are accomplished only with effort. The voice tires easily and the mere presence of companions sometimes seems exhausting, even when the conversation is not exciting.

Palpitation may be noted particularly after exertion and must not be confused with the heart consciousness of the cardioneurotic patient.

Abdominal discomfort is complained of frequently and is described as a feeling of fulness in the upper part of the abdomen or a lingering uneasiness in the epigastrium. Belching often brings relief of this distress as well as of the more definite substernal anginal pain, so it is natural for the patient to focus his attention on the abdomen rather than the heart. That the condition is related to the heart is suggested by

the aggravation of the abdominal complaint by exercise after eating or by emotional factors. Pain simulating that of peptic ulcer occasionally develops which may prove confusing; since peptic ulcer sometimes co-exists, such cases need careful clinical study. It is worth remembering, however, that when pain of this character arises for the first time during the "coronary aftermath" it will likely prove to be of anginal character.

Insomnia is sometimes troublesome, particularly in those patients who have not made proper mental adjustments to the heart disease. Insomnia is seldom due to angina decubitus, but in some instances it may be due to the same mechanism as paroxysmal nocturnal dyspnea.

Personality changes develop in some patients following coronary occlusion, the family or friends noting petulance and irritability or moroseness. Or there may be only indecision, a loss of power of concentration or a vague unrest of spirit, with lack of interest in any aspect of life. Intolerance for cold may become quite marked.

Congestive heart failure may ensue at any time during the "coronary aftermath", differing in no way from failure due to other types of heart disease. If the failure is predominantly in the left ventricle dyspnea on exertion, orthopnea or paroxysmal nocturnal dyspnea and cough will prevail; the vital capacity will be lowered and tolerance for exercise reduced. Dependent edema and possibly hydrothorax and ascites appear when the right ventricle fails, although an increase in venous pressure may be the only clearcut sign of early right sided failure. Even though improvement may follow proper therapy, one should expect recurrence of congestive failure after an interval of weeks or months.

Physical findings of diagnostic significance are more often than not lacking in patients who have recovered from the acute phase of coronary occlusion. In the absence of complications the most common abnormalities noted are weak heart tones and moderate hypotension, but such findings are never very significant. Cardiac hypertrophy and dilatation may be found particularly if multiple infarctions have developed or if hypertension is present, and a systolic apical murmur due to dilatation of the mitral ring is audible frequently. If a cardiac aneurysm

has formed the diagnosis may be difficult, although Libman<sup>1</sup> stated that a pulsation distinct from the apical pulsation and accompanied by a dull first sound and gallop rhythm signifies aneurysm. The radiologic diagnosis of cardiac aneurysm is often difficult. According to Berk<sup>2</sup>, if the aneurysm is diffuse the apex is dilated eccentrically with systolic contraction hardly visible; if it is circumscribed a definite bulge is seen, and there may be paradoxical pulsations. Kymography is an aid in securing an accurate diagnosis of cardiac aneurysm, as well as in depicting areas of healed infarction in the ventricles not shown by ordinary radiologic examination. For details of this examination, the papers by Hirsch<sup>3</sup> and, more recently, by Sussman, Dack, and Master<sup>4</sup> may be consulted.

Electrocardiography may disclose no abnormalities but commonly there is some relic of the acute changes which occur in myocardial infarction; or frequent premature beats, auricular fibrillation or varying grades of auriculo-ventricular block may be found. In other instances bundle-branch block shows up; in fact one has a right to suspect a previous coronary occlusion whenever evidence of this abnormality appears in the electrocardiogram.

#### COMPLICATIONS

A condition simulating subdeltoid bursitis or periarthrititis of the shoulder (usually the left) is a common complication which follows coronary occlusion. The shoulder is painful, almost continuously so, and is made worse when abduction or external rotation is attempted, or when the patient lies on the affected side. Painful swelling of one or both hands may add further distress. Although this complicating pain of the shoulder has been described by a number of authors, including Edeiken and Wolferth<sup>5</sup>, Libman<sup>6</sup>, and Boas and Levy<sup>7</sup>, some clinicians still confuse it with referred anginal pain, and keep those afflicted in unnecessary confinement for long periods of time. Numerous theories have been presented as to the underlying cause, but the exact mechanism producing the painful shoulder syndrome remains obscure, both metabolic and neurogenic factors probably playing a part. The condition usually persists for several months, sometimes for a year or more. In some instances there is a deposition of calcium salts in one of the tendons (usually the supraspinatus) about the subdeltoid bursa, or the

calcareous material may rupture into the bursa with relief of pain, as recently pointed out by Weiland and Burbacher<sup>8</sup>.

Delayed embolic phenomena may serve as complications even months after the acute occlusion, although most emboli from the mural thrombus underlying an infarcted myocardium are thrown off during the early days of the acute attack.

Peripheral vascular disease, chiefly arteriosclerosis involving the vessels of one or both legs with intermittent claudication, occurs fairly commonly in patients who have suffered coronary occlusion previously, and in some instances limitation of walking is due more to the peripheral vascular disorder than to the condition of the heart.

Disease of the biliary tract may be a distressing complication during the "coronary aftermath". If there is cholecystitis or cholelithiasis, attacks of anginal pain may be aggravated or even initiated, according to Fitz-Hugh and Wolferth<sup>9</sup> who demonstrated clinical relief of such pain following cholecystectomy. On the other hand, Levine<sup>10</sup> recently declared he had never seen true angina disappear after this surgical procedure. Peptic ulcer, as noted above, may co-exist, and if the pain from the ulcer follows a path similar to that of anginal pain, it may be impossible to differentiate between the two, except for the fact that alkali will relieve the one and nitroglycerin the other. If a malignant condition develops in the stomach or bowel, care must be taken not to attribute the resulting symptoms to the cardiac disease. If lesions develop in the urinary tract they can usually be diagnosed without confusing them with the cardiac disease.

#### TREATMENT

Many patients will not need any therapy during the "coronary aftermath" other than proper rest. Nitroglycerin is the most important drug used in alleviating anginal pain; it is given sublingually in doses of from 1/250 to 1/50 grain. As patients show a marked difference in tolerance to this drug, it should be used with due care. It may be used prophylactically before the patient undertakes any form of physical exertion, or before he attends the theatre or a social function. If the pain is relieved more satisfactorily by whiskey or brandy, there is usually no contraindication to alcohol in modera-



tion. At times morphine sulfate is required in the usual dosage. Self medication must be relied upon as it might prove dangerous to wait for a physician's visit. To reduce the frequency of painful attacks, one of the xanthine derivatives such as aminophylline, theobromine-sodium salicylate, or theocalcin should be tried. Although there is considerable argument as to the value of these preparations, there seems little doubt that some patients note fewer attacks of pain while taking one or another.

In recent years I have induced a number of such patients to install in their homes an apparatus\* for the inhalation of oxygen as it has been shown that the use of 100 per cent oxygen for a few minutes will end most attacks of anginal pain. By having the oxygen immediately available, many patients have been rendered more comfortable, and some prefer it to the use of nitroglycerin. On some occasions it has proved extremely fortunate to have oxygen so readily at hand to combat attacks of acute failure of the left ventricle or a recurrence of coronary occlusion.

The usual therapeutic regime should be instituted if congestive heart failure supervenes: digitalis, diuretics, sedatives, and the restriction of fluids and salt.

Cheerfulness and encouragement are of great value to the patient who, with a natural lack of enthusiasm, is anticipating a recurrent attack of coronary occlusion.

The diet should be plain, the patient's weight should be kept within bounds, and constipation should be avoided by the usual measures. Sometimes a striking improvement in general health follows the use of vitamin therapy. If the appetite is poor and the patient is underweight and listless, the use of insulin as a tonic measure is justified. Care must be taken to supply abundant amounts of carbohydrates in the diet, thus avoiding hypoglycemia and its attendant risks. I have used insulin in a number of such cases during the past ten years, and it has not precipitated angina or coronary occlusion in any instance. I have found it to be a very useful measure in restoring some of these patients to better health<sup>11</sup>. It should not be used, however, by any patient who is not willing to follow orders carefully to avoid hypoglycemic reaction.

## SUMMARY

A review of the common features of the clinical status which follows recovery from the acute phase of coronary artery occlusion, has been presented. For the sake of clearness and brevity many details making up the clinical picture have been omitted. Some comments on therapy have been added.

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## DISCUSSION

*Dr. W. C. Blake, Tampa:*

During the last decade the laity as well as the members of the profession have become conscious of the increasing prevalence and usual symptomatology of coronary disease. With the trend in population favoring a relative increase in numbers in the later decades of life while at the same time the increasing complexity of human existence exacts its toll, the evaluation of the sufficiency of the coronary circulation has become one of the major problems confronting the internist. Coronary occlusion with myocardial infarction is one of the most common complications of coronary disease. Frequently its onset is dramatic, and a clinical picture is produced that could hardly be mistaken for any other condition. As Dr. Knowlton has pointed out, this symptomatology may, however, vary within wide limits, or the onset of gradual myocardial failure may furnish the only clue to its occurrence.

On the other hand, it is safe to say that the diagnosis of occlusion is made far too often on insufficient grounds. This error would not be made so frequently, as Haman and others have reminded us, if the other circulatory and extracirculatory conditions capable of producing anterior chest pain were kept in mind. In no other disease is a careful clinical history of such paramount importance.

Dr. Cason has admirably set forth the importance of careful scrutiny and consideration of the entire laboratory and clinical pictures, if errors of commission or omission

\* The apparatus used for the administration of 100 per cent oxygen, is that designed by Boothby, Lovelace and Bulbulian, and the mask is termed the B.L.B. mask.



are to be avoided. No single bit of evidence is in itself pathognomonic. Even the T wave changes so constantly associated with occlusion occur also at times with hypertension and both acute and chronic pericarditis. Again, the evidence often rests heavily on minor cardiographic changes. It should be borne in mind that a normal cardiogram may be obtained in the presence of known serious coronary insufficiency. Even after infarction has actually taken place, the typical cardiographic changes may not appear for a period of six or eight days. Consequently, if repeated examinations are not made where the clinical picture warrants it, the true condition may pass unrecognized. Such a situation is tragic, but it is also just as tragic to see a person condemned to a life of invalidism when no serious coronary insufficiency exists. Permit me to emphasize again the necessity of careful scrutiny of both the clinical and laboratory picture before a definite diagnosis is made, lest the etiologic diagnosis be missed.

Dr. Nichol has ably presented the problems pertaining to the aftermath of coronary disease. Not the least of these is cardiac neurosis. Extravagant publicity has made it well known to the laity that among the chief causes of mortality heart disease now leads with a tremendous majority, causing many more than twice the number of deaths attributed to cancer, its nearest competitor. One of the great advances of our generation has been the clear designation of the more important causes that may act separately or simultaneously to damage the heart, and of these causes coronary disease and hypertension are perhaps best known to the general public. In dealing with patients suffering from coronary disease, it is highly important to distinguish between immediate and ultimate prognosis. There is a tendency today to diagnose prematurely "permanent total disability" when the immediate prognosis is temporarily grave, for many times there is a strong possibility of recovery to a fair state of health with years of life ahead.

To win the intelligent cooperation of the patient and allay unwarranted fear of this cardiac ailment that strikes terror, often needlessly, is no small part of the physician's task. In this disease, common as it is among business and professional men of middle age today, some patients die in a few seconds in their first attack, but by far the most of them live a number of years, and a few survive twenty years or longer.

#### *Dr. E. W. Bitzer, Tampa:*

I have enjoyed the papers and think they deal with one of the most interesting subjects in the category of medicine. There are two things I would like to talk about to you for a few minutes.

One is the possibility of foretelling the onset of acute coronary occlusion. For many years an exercise test has been used in cardiographic work. In recent years Dr. David Scherf has become very enthusiastic about this test and has collected some interesting cardiograms showing the changes following exercise. Being interested in this test I tried it in a number of instances with very indifferent success and concluded that only in luteal occlusion of the coronaries was it of value. I think in those cases it is very interesting.

Some years ago I conceived the idea that perhaps producing certain changes in the blood pressure might lead to significant changes in the cardiogram. With this in view I subjected a number of patients suffering from angina pectoris to the cold pressor test, developed by Brown and Hines. In some patients there was a jump of 80 or 90 mm. in the blood pressure, but in less than 1 per cent of them was there any change in the cardiogram which was taken during the time when the blood pressure was elevated.

I had one very interesting experience while doing this. One woman who had a hypertensive cardiac condition was evidently supersensitive to cold. She had found that putting her hands in cold water or handling ice would immediately precipitate an attack of angina pectoris. She also found that putting her hands in warm water would relieve the attack. In this instance there was

a prompt onset of pain in the chest when the hand was immersed in cold water. There was also a jump in the blood pressure of about 35 mm. Later on I gave carbon dioxide inhalations and produced the same jump in pressure but this did not precipitate an attack.

Some day I believe we will work out a means of determining coronary disease before the onset of symptoms and this will be of great advantage.

The other condition about which I want to speak is the various forms of arrhythmia in coronary occlusion. The most common form is premature beats. This, however, is relatively unimportant. Heart block has already been mentioned and, of course, bundle branch block is fairly common. The uncommon ones are the tachycardias, which create a very embarrassing situation when they occur in the course of acute coronary occlusion. Recently I observed one such case in which the pulse rate was 220. It proved to be ventricular tachycardia and death followed promptly. Auricular fibrillation may occur and is frequently fatal.

#### *Dr. R. M. Harris, Miami:*

There are one or two remarks I would like to make concerning prognosis. I think that the prognosis depends upon whose statistics we consider at the present time. In some series the mortality has run as high as 50 per cent, whereas in some of the more recent studies reported it has been as low as 10 per cent. In other words 90 per cent of patients under 40 years of age have a chance to survive their first attack of coronary thrombosis. The mortality of course goes up as the age of the patient increases. On the other hand, a young person who suffers an attack of coronary thrombosis has a definite alteration in his life expectancy.

An early correct diagnosis very definitely alters the prognosis in coronary thrombosis. Pain is not as important perhaps, as it was thought to be at one time. Of course pain lasting over a period of two or three days usually indicates a fairly widespread lesion and in that respect it is important.

Shock is extremely important. For in those patients who manifest evidence of severe shock the mortality rate is definitely higher, and for those who show circulatory failure and congestive heart failure the mortality rate may run as high as 70 or 80 per cent.

Dr. Knowlton brought out some statistics with regard to the incidence of coronary thrombosis in men and in women. I believe he said the ratio was approximately 5 to 1. I feel this is approximately correct although I believe that Dr. Levine in his recent series found the incidence to be perhaps as low as 3 to 1.

The existence of fever over a long period of time, a week or ten days, is of definitely bad prognostic significance. Further, a drop in blood pressure where the pulse pressure is 20 mm. or less is always a bad prognostic sign. This was brought out very clearly by Dr. Cason.

The existence of arrhythmias frequently causes concern. Sometimes it demands no treatment and sometimes it does demand treatment. It is the custom of one or two outstanding cardiologists to give routine doses of quinidine sulfate to patients with coronary occlusion who show definite signs of arrhythmia.

#### *Dr. Thomas E. Daly, Palm Beach:*

This subject has been so well covered that there is very little left for me to say, so I will pick up loose ends and add a little here and there to what has been said.

If I were to say nothing else I would have to stress the fact that the family and personal history in these cases is more important than any other one thing. Physical examination comes next in line and the electrocardiographic reading or diagnosis, if you wish to call it such, runs a poor third. In fact, it is just one more laboratory test as is the basal metabolism and the sedimentation rate. I think that one single electrocardiographic reading is hardly worth the paper it is developed on. Serial electrocardiograms, however, are of importance and of value.

Sometimes clinical symptoms will precede the electrocardiographic signs by as much as ten days. Sometimes signs will never appear on the electrocardiogram. It is well to bear these facts in mind.

The question of frequency of coronary occlusion or coronary thrombosis in women and men or comparison of the two arises: I have sometimes wondered whether the wearing apparel of men and women did not have some bearing on this, as was brought out at the recent meeting of the American College of Physicians. Women used to, and some of them still do, wear some type of abdominal supports and much lighter clothing than men. I believe that these are worthy of a try in treating these patients,—I am referring to the men now as well as the women. I have prescribed surgical belts for several patients in West Palm Beach and Palm Beach, and I think they are being benefitted to a great extent.

Not much has been said about therapy in the discussion today. That can be easily appreciated as there is not too much to be said. The most useful drug, if it can be called a drug, is oxygen. If the patient cannot be removed to a hospital, oxygen should be brought to the patient at home before anything else is done, and before everything else. Morphine is a helpful drug but it can sometimes be a harmful one if the patient has myxedema, for he may die suddenly.

Dextrose, I think, should be used only when there is dehydration caused by vomiting. Otherwise it may prove harmful.

Digitalis I mention just to caution against its use. Digitalis can be harmful and we have been too inclined, when patients had auricular fibrillation, to prescribe digitalis immediately. Digitalis won't help auricular fibrillation much in these cases, as it increases the work of the heart. If the patient is let alone auricular fibrillation will usually stop unless the lesion is so bad to begin with that it will cause death. However, when congestion sets in the doctor has no other alternative. He must use digitalis.

There has been much discussion about the use of quinidine for coronary thrombosis although it has seldom been reported. I often wonder if it is not of some value. Frequently I administer quinidine three times a day in small doses with the hope of warding off ventricular fibrillation as I believe many of these patients die from just that. The use of vasodilators is theoretically sound but not conclusively proved of worth.

#### *Dr. Julian E. Gammon, Jacksonville:*

From a pathologic point of view there are four distinct types of coronary disease. The first is perivascular fibrosis in which the vessels are to a certain extent insulated from the muscular tissue and this is the lesion in which we see cardiac dilatation and congestive failure. The cardiogram usually does not show evidence of disease excepting when arrhythmia is present.

The second type is commonly called hardening of the arteries and is due to deposits of calcium beneath the intima and in the muscularis which frequently narrows the coronary orifices and may gradually occlude the vessel at the opening into the aorta. In such instances collateral circulation through the thebesian veins and coronary artery anastomosis may give the heart a fair degree of efficiency. The arteriosclerosis due to calcium deposits is frequently associated with angina pectoris and the cardiogram may not show evidence of disease.

The third type is atheromatous degeneration of the intima and it is on this lesion that a clot may form and produce coronary thrombosis and occlusion of the vessel with infarction in the heart muscle. It is the infarction of the heart muscle which produces the characteristic cardiographic signs of sudden vascular occlusion from thrombosis. Should the occluded vessel cause infarction of the interventricular septum the condition is serious since the conduction pathway in the Tawara-His bundle or its right and left subdivisions are severely damaged or destroyed. The result is heart block or bundle branch block. There is also the possibility of intraventricular thrombi forming and secondary embolism. Embolism

may also occur when the infarct involves the ventricular wall producing pericardial friction rub and thrombi on the endocardium. These patients have profound weakness and have marked drop in blood pressure. When the infarct is superficial, however, the blood pressure may not fall unless shock is produced. Some of the latter patients may pass as victims of angina pectoris and on coming to autopsy in a few years, the superficial scars of infarction may be seen. In such a patient the cardiogram may not show the characteristic evidence of the true condition. Hence, it is a wise plan not to depend too strongly on a cardiogram in evaluating heart disease for a diseased heart may show a normal electrocardiogram. Furthermore, one patient may have the characteristic cardiographic signs of infarction and die; another may be a chronic heart invalid and still another may return to his normal state of health and live a number of years. The layman may ask, "How else then can you tell a sound heart from a diseased heart?" A knowledge of etiology and pathology, together with clinical experience and the aid of instruments of precision may answer this question.

Time does not permit the discussion of the fourth type of coronary disease, endarteritis.

#### *Dr. R. H. Knowlton, (concluding):*

It was not my intention in this brief paper to cover more than a few of the varied features of coronary occlusion which might be of practical interest. These observations are in general supported by references to the recent literature with the exception of the occurrence of coronary thrombosis in an anesthetized patient. I feel sure that my associates join me in thanking the physicians who added to the presentation by their generous discussions.

#### *Dr. T. Z. Cason, (concluding):*

There are only one or two little points to go into. First, despite the almost complete failure of my picture, I want to say that this is a very interesting and instructive way to learn something about the electrocardiograph.

Second. In spite of the fact that I have been studying electrocardiograms and watching them for a little over eighteen years I still do not know a great deal about them. I still find there is a tremendous lot to learn. None of us should get to the point where we think we know it all.

The younger men coming out today are learning something about the interpretation of electrocardiograms and something about the proper method of substantiating the findings in these cases. It is most interesting. If we older men do not start out right away these young fellows are certainly going to put it over on us.

#### *Dr. E. Sterling Nichol, (concluding):*

The question of cardiac neurosis was brought up. Out of a fairly large group, I have encountered about fifteen instances of combined cardiac neurosis and coronary thrombosis. It is not a pleasant experience, having assured a patient he has cardiac neurosis but a sound heart, to see him stricken down within a month or so. I have had that happen twice in the past few years. I observed one striking instance of coronary thrombosis, considered cardiac neurosis, a few years ago in a very healthy appearing, robust and energetic 37 year old man with a tremendous love of life and activity. Because of a previous addiction to morphine, when he developed pain, although considered at first coronary in origin, the cause was later believed to be cardioneurosis brought on by marital discord. This patient had severe seizures of pain without much evidence to show for it on clinical examination, so that one hardly could conceive his pain as being due to coronary insufficiency. Against my advice and that of other physicians in the North, he convinced one of the neurosurgeons in a large clinic that he should undergo sympathectomy for his cardiac pain. He actually chose that as a method of suicide, for he knew that he could not tolerate such an operation. He died of shock on the table. Autopsy revealed three large areas of fibrosis due to separate coronary thromboses in the past.



## SURGICAL TREATMENT OF ESSENTIAL HYPERTENSION

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There is probably no type of case treated by the internist with a greater feeling of pessimism than that of the relatively young individual suffering from essential hypertension. The internist should, therefore, welcome the application of surgical treatment to this type of case.

It is generally conceded that the medical treatment of essential hypertension is only palliative. The usual medical treatment, consisting of rest, diets, and varied medications, may lower the blood pressure temporarily; but the final outcome is invariably the same. Adson<sup>1</sup> has classified hypertensive cases into three groups: slow, moderate, and rapid. He estimates the life expectancy in each group as 10 to 15 years for the slow; 3 to 4 years for the moderate; and 18 months for the rapid. At best, medical management of these cases results in total and permanent disability, so far as remunerative work is concerned; and unfortunately, the financial status of the majority of patients prevents them from availing themselves of the advantages which might be gained from rest and mental relaxation. In the cases of these individuals in the lower income brackets surgical treatment is especially intriguing, because it may enable the hopelessly disabled individual to resume gainful occupation within a short period of time.

In selecting cases of hypertension suitable for surgical treatment it is most important to have a thorough understanding of the pathological physiology underlying this disease. First of all, a very careful differentiation must be made between "essential hypertension" and hypertension of known organic etiology. In studying these cases we must first identify those which may be attributable to some known pathological condition such as hyperthyroidism, suprarenal tumor, pituitary disease, nephritis, and arteriosclerosis. In such cases the treatment should be directed towards the underlying disease. The etiology of essential hypertension has

not been definitely established, but the outstanding work of Goldblatt<sup>2</sup> has at least afforded a tangible basis upon which to theorize. Goldblatt devised an ingenious metal clamp with which he was able to apply varying degrees of constriction to the renal arteries of dogs. He found that uremic symptoms and death occurred only when there was sudden, severe, bilateral shutting off of the arterial supply to the kidneys. A gradual, partial constriction of one or both renal arteries produced a renal ischemia and a permanent rise in blood pressure with a lowered urea clearance as the only indication of impaired renal function. It was further determined that the release of this arterial constriction resulted in the return of the blood pressure to normal. Subsequent experiments by Page,<sup>3</sup> Blalock<sup>4</sup> and many others have pretty well established the fact that when a kidney is deprived of an adequate blood supply it produces some "pressor substance" which raises the blood pressure above normal in an effort to regain an adequate blood supply for itself. This correlation between renal blood supply and essential hypertension has afforded a physiological approach to the surgical treatment of the disease. It is felt that many cases of essential hypertension may be relieved by correcting renal ischemia and reestablishing an adequate blood supply to the kidney.

Experience with surgery of the autonomic nervous system in connection with peripheral vascular disease has shown us that an interruption of the sympathetic nerve supply produces a vasodilatation and, consequently, an increase in blood supply. Following out this idea, one would be justified in assuming that the most practical way to increase the blood supply to the kidney would be to interrupt its sympathetic nerve supply; and this is the approach which has proved most satisfactory.

The surgical treatment of hypertension has been approached from several different angles. A good many years ago Crile<sup>5</sup> and DeCourcy<sup>6</sup> attempted to relieve hypertension by operating upon the adrenal glands. They believed that hypertension was produced by abnormal secretion of adrenalin. This idea has now been abandoned. Adson<sup>7</sup> performed extensive rhizotomies on individuals with hyper-

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tension, sectioning the anterior roots from the sixth thoracic to the second lumbar segments in order to produce a paralytic vasodilatation of the entire splanchnic area. This procedure was none too successful, and the associated mortality and morbidity were entirely too great to justify its clinical application. A little later Craig<sup>7</sup> developed a technique by which he sectioned the greater and lesser splanchnic nerves and at the same time removed the first lumbar ganglion and resected approximately four-fifths of the adrenal gland. His results in these cases were more encouraging but far from constant. The procedure was a rather formidable one, carrying with it a high mortality and requiring a two-stage procedure to do both sides.

In 1929 Peet,<sup>8</sup> using a supradiaphragmatic approach, first sectioned the greater and lesser splanchnic nerves bilaterally in an attempt to relieve gastric crisis. This experience convinced him that the supradiaphragmatic approach afforded a relatively simple and harmless method for the surgical interruption of the splanchnic enervation, and in 1933 he first performed this operation for the relief of hypertension. In 1935 he reported the results of his first 100 cases. Peet found that in this early series the results more than justified the slight danger encountered in doing this procedure. Frayberg and Peet<sup>9</sup> have shown that depriving the kidneys of their sympathetic nerve supply has had no undesirable effects, and in some cases there was an actual improvement in renal function after splanchnicectomy.

Peet and his associates have performed intrathoracic splanchnicectomies on well over four hundred cases. Many of them have shown a persistence of clinical cure or great amelioration of symptoms for as long as five years. The period of elapsed time since these operations have been performed is not long enough to permit any definite statements in regard to the permanency of good results. It is evident, however, that the results have been sufficiently encouraging to justify further use of surgery in the treating of selected cases of progressive essential hypertension.

Craig<sup>11</sup> and other surgeons at the Mayo Clinic have had similar experiences in their large series of cases and they are, for the

most part, enthusiastic in the reports of their experiences in the surgical treatment of hypertension.

Crile<sup>12, 13</sup> is a most enthusiastic advocate of the surgical treatment of hypertension. In studying a large series of cases in which he had operated he found that eighty-seven per cent of the patients received symptomatic relief and thirty-five per cent were completely cured with a return of blood pressure to normal.

Heuer<sup>14</sup> and Page<sup>15</sup> have been more pessimistic in their reports, but even in their pessimism they state that they have observed patients with essential hypertension incapacitated and practically bedridden as a result of the disease, who have returned to their customary work for a period of as long as three years. They feel that this should be sufficient encouragement to justify the continuation of surgical treatment. Smithwick<sup>16</sup> is of the opinion that patients with essential hypertension that is shown to be definitely progressive in nature should be subjected to sympathectomy as early as possible, before advanced organic changes have taken place in the vascular system. He feels that the immediate outlook seems encouraging and time may show that the disease may be arrested, or even cured, if operation is performed before arteriosclerosis takes place.

As stated previously, the surgical treatment of hypertension has not been employed long enough to afford a fair evaluation of its possibilities; however, the experience of Peet<sup>17</sup> seems to have been shared by many others carrying out this type of treatment. Peet found that seven per cent of his patients showed no improvement; sixteen per cent showed slight improvement; twenty-nine per cent showed moderate improvement; thirty-three per cent showed marked improvement, and fifteen per cent seemed to be entirely cured. In other words, seventy-seven per cent of all his patients have received worthwhile benefit.

The selection of cases for this type of treatment presents a most difficult problem, and no definite criteria have been established. The general opinion, however, seems to be that the patient should not be more than fifty years old; the systolic pressure should be 200 mm. or more; the nonprotein nitrogen

should not be above normal limits; there should be a urine concentration of 1.010 or more; the urea clearance should be above 30 per cent; the heart should be in compensation. There are certain clinical observations which aid us in selecting appropriate subjects for this operation. Hines<sup>8</sup> has shown that the effect of vasoconstriction on blood pressure may be evaluated by placing the patient's hand in ice water. If doing this produces an appreciable rise in pressure, one may assume that vasospasticity is playing a part in producing the hypertension, and for that reason a fall in pressure may be expected following interruption of the sympathetic nerve supply to the splanchnic vascular bed. Any prospective candidate for surgery should be tested in this manner and should also be observed under varying conditions. If there is an appreciable fall in blood pressure when the patient is put to bed and given sedatives, one may assume that the same results may be attained permanently by surgery. If the pressure rises sharply under emotional stress or physical activity, one is justified in believing that such peaks in pressure can be prevented by interrupting the sympathetics.

The procedure which I use is the intra-thoracic splanchnic section devised by Peet. This consists of resecting the paravertebral portion of the eleventh rib subperiosteally and retracting the pleura laterally. This affords an adequate exposure of the lower mediastinum and enables one to resect an ample segment of the splanchnic nerves and also remove the tenth, eleventh and twelfth thoracic sympathetic ganglia together with the intervening portion of the thoracic sympathetic trunk. The bilateral procedure may be done at one operation and requires from forty-five minutes to one and one-half hours. This can be done under local anesthesia, but I prefer a light general anesthesia. There is little or no danger to the patient, and the average patient is ready to leave the hospital in four or five days.

Following such a procedure the initial drop in blood pressure is spectacular. Frequently intravenous fluids have to be given to keep the pressure up to minimum requirements. Following this initial plunge the pressure slowly rises until at the end of two weeks or a month it has frequently regained its preop-

erative level. After the first month or six weeks there is a gradual reduction of hypertension, and after ninety days a new constant pressure is usually established at a gratifyingly lower level.

#### SUMMARY AND CONCLUSIONS

Experimental evidence indicates that essential hypertension is caused by renal ischemia. This renal ischemia may be corrected by depriving the kidneys of their sympathetic blood supply, and thereby producing a vaso-relaxation of the renal arterioles.

Renal sympathectomy may be accomplished with a minimum amount of risk by sectioning the splanchnic nerves and the thoracic sympathetic trunk in the lower mediastinum. Individuals under fifty with no evidence of arteriosclerosis, nephritis, or other responsible organic disease who suffer from a progressive hypertension should be considered as prospects for surgical treatment. If their blood pressure undergoes a sharp rise when their hand is placed in ice water, and if there is a definite fall in pressure when the patient is put to bed and given sedatives, surgical treatment should be undertaken.

In advising surgery for such an individual he should be told that there is a 25 per cent chance of obtaining a complete cure; a 25 per cent chance of obtaining marked relief; a 25 per cent chance of obtaining some relief, especially from headaches and nervousness; and a 25 per cent chance that he will receive little or no benefit.

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## ANESTHESIA

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In this paper I shall try to cover the topic of anesthesia in a general way. An understanding of the advantages and shortcomings of various anesthetics in common use will allow the clinician to judge the type of anesthesia to be used in any particular case. It will also enable him to evaluate the relative safety and scope of various methods, to form his own conclusions and appraise the claims of enthusiasts in various fields.

The prime requisite of an anesthetic should be dependability and consistency in its mode of action. It should be above all things safe. It should be easy to control and its actions should be readily and easily reversed. It should narcotize the patient rapidly without physical shock and should obtain complete relaxation for as long a period as is desired. Its withdrawal or the patient's awakening should be without unpleasant effects. It should produce

no pathology, per se. It should not unduly affect the sympathetic nervous system, as neurological signs clearly defined and in recognized sequence are our chief guide to stages of anesthesia.

There is no anesthetic that in my opinion fulfils all these requirements. Some do one thing better than others. I believe that, all things being equal, granting an ideal patient, the most intelligent approach to the problem of selecting the best anesthetic would be first, since we cannot have everything, to decide which of the above factors are the most important.

I think you will all agree that safety is the foremost factor; then come dependability and ease of control, with ability to produce relaxation a close third. While the average patient wants and has a right to expect an anesthetic which is easy of induction, to my mind this factor should be the last to consider. The fact that an anesthetic produces no lasting pathologic changes in tissue organism, that it is safe and easy to control is more important than momentary discomfort which a patient may have either in going under or coming out of his anesthesia.

So let us examine various anesthetics which are commonly used in this locality to see how they fulfil these qualifications.

First, we will consider local anesthetics. These react by direct contact with the nerve endings. They are known by many names but are all synthetic derivatives of cocaine, such as novocain, scurocaine, procaine, gravocain, spinocaine, stovaine, durocaine, and organic compounds without number. We take novocain as a type. It may be applied:

1. Direct to mucous membranes.
2. Injected into groups of nerves.
3. Put in direct contact with nerve endings in the spinal canal. This, of course, is spinal anesthesia.

Spinal anesthesia depends upon the introduction of novocain or one of its compounds into the spinal space where it is rapidly absorbed or fixed by nerve roots, producing anesthesia and loss of motor function of these roots, whether voluntary or involuntary. Its action is governed by certain well-defined laws. First, with a given quantity, the range of anesthesia is governed by the amount of



solvent fluid used. By rapidly injecting a concentrated amount we may limit anesthesia to the perineum only or by barbotage, in which the spinal fluid is withdrawn and the drug added to it in the syringe before reinjection, extend it to dangerous heights in the spinal canal. Second, the larger the quantity of anesthetic used by volume, the higher will be the level of anesthesia. Third, the specific gravity or sinking quality of the dilution used will allow us to govern the level of anesthesia by regulating the position of the patient. Some solutions such as Pitkin's spinocaine will rise and other solutions, such as scurocaine (French preparation of novocain) will sink. Fourth, the duration of anesthesia is in proportion to the concentration of the material used.

It will be seen that in the hands of a skilled operator this anesthetic may be fairly well controlled as to field and that it may be administered without physical shock. However, it is not consistent in its physiologic action, it can not be removed once it is administered and, as we shall see, it may produce a profound and disastrous effect which cannot be foretold.

It may definitely depress respiration. Too high an anesthesia may produce a respiratory paralysis, a frequent cause of death on the table. (Beecher<sup>1</sup>). It frequently produces a definite fall, sometimes profound, in the blood pressure, which may occur early and is usually proportional to the volume of injected fluid. This is due to paralysis of the vasomotor nerves. Secondary falls which are almost always serious are due to depressed vasomotor functions of the carotid sinus which may occur when the anesthesia reaches the level of the umbilicus. At this time the body loses its reflex capacity to compensate for hypotension, and hemorrhage or injury which the normal animal could easily withstand will produce circulatory collapse. (Cushney<sup>2</sup>). According to Maxon<sup>3</sup>, this suggests that the only one hundred per cent safe spinal anesthetic is the saddle type which only anesthetizes the perineum and is ideal for prostatic resection or perineal operations. Any neurologic changes which may occur, either delayed or immediate, are usually more annoying than serious. (Davis, 1931).

As to the mortality rate we can get any figures we wish from the literature, from

one death in 100 to one in 3,000. It would seem to me any anesthetic about which there is so much discussion as to its safety would be dangerous without further investigation. Note the lack of figures giving the mortality rate of ether. I would like to quote a statement of Bower<sup>4</sup>, a co-worker of Balcock, from the *Cradle of Spinal Anesthesia*: "Spinal anesthesia is responsible for more deaths than any other anesthetic in proportion to the number administered . . . the mortality diminishes with the experience of the operator." Compare spinal anesthesia with our own old standby, ether. It is difficult to kill a patient with straight ether!

Let us now discuss general anesthetics. We will first consider those which are given by injection either intravenously or rectally. Here again we have anesthetics which cannot be stopped after having been started and which are inconsistent in their effects. We shall first consider avertin or tribromethanol. This has been widely used as a basal anesthetic, being a little too unsafe as a general. Its permanent place in the armamentarium of the anesthetist is questionable. Sebenning<sup>5</sup> considers it a highly complicated anesthetic which depends on its rate of absorption for its effect rather than the final quantity absorbed. This rate of absorption is so varied that it cannot be easily evaluated. Influencing factors are variations in tone and peristalsis of the bowel, and variations in its gas and fecal content. The "sleeping time" of this anesthetic is also difficult to gauge; it may be dangerously prolonged in diseases of the biliary tree, cachexia and sepsis. It may cause fatty degeneration of the liver; it is a marked depressant to the vasomotor center (Sollman<sup>6</sup>) and its administration is frequently followed by a serious decline in blood pressure. Some patients are peculiarly susceptible to this effect of the drug, and in them the extent of the fall is unpredictable. This would be an important reason for abandoning all but small (less than 100 mg.) doses in adults. The control of the administration is crude; it cannot be interrupted with any degree of surety and after twenty minutes cannot be removed from the colon. Rapid injection is dangerous; too slow injection leads to failure. It is contraindicated in liver and kidney diseases, cachexia, anemia,

sepsis, myxedema, ileus, partial obstruction of the bowel, tumors of the colon and colitis, where vital capacity is reduced, and in the aged. Hence it can be said it is only relatively safe in minimal doses as a basal anesthetic. It does not fulfil any qualifications of the ideal anesthesia except that it is easy on the patient and surgeon.

If a basal anesthetic to be administered rectally is desired, paraldehyde would be my personal choice. However, I do not feel that there are many reasons for giving a basal anesthetic when we consider we are starting an action which we cannot reverse. Giving a general anesthetic on top of a basal one is like driving a car with the throttle set at 25 miles an hour. We do not see many cows on the road but when one steps in front of the car we may want to stop in a hurry.

Next come the barbitals, as intravenous anesthetics. The chief ones are iso-amylethyl barbiturate, evipal and pentothal. The first has had its day, the latter two, particularly pentothal, are now very much in favor in some quarters. The action of all three is quite similar. Unfortunately, although many successful anesthetics have been carried out by intravenous doses of these compounds, this procedure is to be considered dangerous in that the dose taken, which is therefore beyond the control of the anesthetist, must necessarily approach the lethal one, resulting in a mortality rate which is greater than that of the volatile anesthetics. This anesthesia frequently shows late pulmonary complications resulting from prolonged respiratory depression. Post-operative mania and excitement may ensue. Most authorities hold that intravenous injection of the barbiturates should never be resorted to except in cases of emergency such as convulsions where rapid action is desired and where rectal administration is not favorable. (There is also the question of idiosyncrasy, which must not be ignored).

We will now consider anesthetics of the inhalant group. These are governed by the laws of absorption and exchange of gasses, which is a rapid and easily reversible reaction. Those of the ether group are characteristically fat soluble, and the amount of anesthetic required by a given patient is roughly in proportion to

the amount of fatty tissue present, a valuable clinical fact.

Let us first consider ether. It is easily reversible, easily controlled, and obtains the best relaxation of any of the anesthetics, not excluding spinal which is not desirable in cases of ileus. However, it is difficult to anesthetize the patient rapidly, there is considerable psychic shock, and recovery is unpleasant. In these respects it fails to fulfil the requirement of the ideal anesthetic. Perhaps the great popularity and continued use of ether over a period of one hundred years is due to its safety. It may be considered to be the safest anesthetic. The mortality rate of ether is conservatively given by Cushney<sup>2</sup> as 1 death in 12,000 administrations.

Its ready controllability is due to the fact that its neurological signs are constant and consistent in almost everyone as the patient passes from one stage to another of anesthesia. It is so constant that the study of the various stages of ether anesthesia is usually taken as the standard for comparison with other anesthetics, and for teaching purposes.

The physiologic action of ether will be taken in detail. On the central nervous system its action is the same as that of alcohol. (This explains why persons who metabolize alcohol rapidly anesthetize poorly and suggests they should be prepared with 3 oz. of good whiskey). Its action starts with the highest cerebral centers, those of self-control, and passes down through the lower intracranial divisions to the medullary center, which is the last to be paralyzed. Wild movements in the early stages are caused by this loss of self-control, and the patient may be aroused by external stimuli such as noise and restraint. It is imperative that there be quiet in the operating room.

On the respiratory center ether produces a reflex stoppage in the early stages (which can be controlled by the newer methods of administering nitrous oxide, oxygen and ether), irritation of the center with gasping and irregularity in the second stage of excitement and dulled response in the third, or surgical stage. In the fourth stage there is increasing paralysis of the center which leads to respiratory failure. (Not cardiac failure). Note the ease of resuscitation.

With ether, as with any other anesthetic, the heart must carry more than its normal load of work, and with an impaired heart the signs of failure may be anticipated, but it is to be remembered that with ether the respiration always fails before the heart. The blood pressure with ether rises slightly in the early stages and then falls to normal.

Ether produces slight impairment of liver function which disappears the next day, in contrast to chloroform which produces permanent damage. Nitrous oxide produces no effect on the liver, unless accompanied by cyanosis, when both delayed and immediate toxic effects are observed. Evidently ether is the best anesthesia in case of diseased livers, as it is difficult to administer nitrous oxide without slight cyanosis.

In the blood ether increases the concentration of the red cells about 10 per cent. It produces a rapid rise in the white cell count, the most marked of all anesthetics. It generally triples the white count in about eight hours, taking four to five days to return to normal. The blood sugar shows a rise of from 100 to 200 per cent with ether. The coagulation time is decreased from 1 to 24 per cent due to the action of the drug on the adrenals. (Nitrous oxide on the other hand, has been shown to increase the coagulation time). Shock is not particularly great but is more pronounced with ether than with nitrous oxide.

At this point I may mention that in the administration of ether during tonsil operations, the cooperation of the surgeon is necessary in the first plane of the third stage to maintain an open airway. Closure of the airway by excess mucus will result in spasms and anoxemia which in children may produce disastrous results in the early part of the operation. Excess mucus in throat operations is frequently caused by crowding the anesthetic and producing too great a vapor tension in the first stage. It is essential that the patient should be in the second stage with a return of swallowing reflexes at the end of the operation before he is taken off the table. This will reduce the incidence of post-tonsillary lung abscesses and pneumonia.

To sum up, ether is safe but it is unpleasant to take and is uncomfortable to come out of.

Chloroform and ethylchloride are men-

tioned only to be condemned. The frequency of ventricular fibrillation and serious heart damage with small concentration of these anesthetics preclude their use and discussion.

Divinyl ether is an anesthetic of the alcohol-like group which is exceedingly rapid in its action and not unpleasant to take. Its administration must be accompanied by a large amount of oxygen. The rapidity with which it goes from one stage to another calls for care and skill in its administration. It is relatively safe in experienced hands but should be generally confined to induction and short operations. When it is used to induce ether anesthesia, great care should be used in switching over, that too great a combined anesthetic tension at this point does not produce disaster.

Ethylene will not be discussed. Apparently most clinics don't mind losing a patient once in a while, but when they lose the patient and the anesthetist and the surgeon get burned, it is a little too much and they stop using it.

Cyclopropane is a new anesthetic, rapid in its effects and easy on the patient. It is given in low concentration of from 6 to 20 per cent with oxygen. It has very little side effect except prolongation of bleeding time. Apparently its only disadvantage is that cardiac failure occurs before respiratory paralysis in the deep stages. Otherwise it is the ideal anesthetic.

Nitrous oxide is a gas which exerts a specific action on central nervous tissues, reinforced by anoxemia present. (Since 94 per cent nitrogen is necessary for complete anesthesia there is always a slight amount of anoxemia present). (Cushing, 1938). The circulation and heart are not affected by nitrous oxide except as to the amount of anoxemia present.

Nitrous oxide pushed to the final stages simply paralyzes the respiratory muscles, hence the treatment of accidents under nitrous oxide consists of artificial respiration alone. There is always considerable warning before respiratory failure so that even in the deep fourth stage there is a small margin of safety. This anesthetic when combined with small quantities of ether (20 to 40 cc. with the closed method) and used with carbon dioxide as a respiratory stimulant when needed is as near



the ideal anesthetic as we have. The induction is easy on the patient, who is under control at all times, and good relaxation can be obtained. The stages of anesthesia are well defined and as the ether may be almost entirely removed from the patient by the end of the operation, recovery is rapid, the average patient showing a swallowing reflex within two minutes after the mask is removed.

To administer nitrous oxide successfully, the preparation of the patient and method of induction are exceedingly important. There is no anesthetic in which different types of patients show such a varying response in the first and second, or excitement, stages. For purposes of discussion we shall divide people into the vagotonic individuals, in whom the bulbosacral nervous system is predominating, and the sympathetotonic type which shows an overstimulation of sympathetic nervous system. The vagotonic is familiarly the heavy-set, pleasant individual who never worries and takes life easy. He has a tendency under anesthesia to show early and constant contraction of the pupils, bronchial and laryngeal spasm and intestinal hyperistalsis. He typically vomits and shows cyanosis and rigidity while in the deeper stages of anesthesia. The sympathetotonic individuals will show dilated pupils through the second stage which may be so marked as to appear much deeper than they really are. With them it is almost impossible to tell what stage of anesthesia they are in, except by their respiration. They may struggle, vomit, gag and show excess mucus in the first stage in contrast to the quiet first stage of the former type. It is sometimes impossible to get them beyond the first plane of the third stage (or deep enough to operate upon) without the addition of a small quantity of ether.

I feel that patients may be further subdivided into the introverts and the extroverts. The former will be quiet in the first stage and require restraint in the second. The extrovert will as a rule take a rough and noisy first stage.

With nitrous oxide, the point of induction marks the beginning of the first stage. At this point there should be absolute quiet in and about the operating room. Remember that for five minutes in the first stage noises and con-

versation impress themselves upon the subconscious mind of the patient and are reflected as motor responses. The slightest movement of the patient's arms or legs in the first stage may provoke respiratory spasms and clonic motions. These involuntary spasms in the early stage should be differentiated from the purposeful struggling of the hysterical or ornery patient. This type of patient fights the anesthesia with purposeful movements. It may be due to fear, but is usually due to lack of self-control or a simple showing off. This contingency is usually best met by taking off the mask and giving the patient a severe talking to. In five minutes the patient enters the second stage of delirium and this is when the attendants must stand by to avoid any accident. In the late second stage muscle tone increases, the jaws set, and the eyes close, and the body stiffens. At this stage too rapid an induction or too high a vapor tension of anesthesia will produce respiratory paralysis.

To bring all our patients to as near a mean level as possible is the purpose of preliminary medication. From experience and observation I have found that everyone should have a grain and a half of nembutal the night before and the morning of operation. The vagotonic types should have a large dose of atropine, the sympathetic types need little or none. Small doses of morphine are of an advantage to the extroverts of both groups. The morphine should not be increased above one-sixth unless pain is present, when enough should be given to make the patient comfortable. Preliminary medication properly given to selected patients will make nitrous oxide, oxygen, ether anesthesia consistent in all cases.

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## SCIENTIFIC PROGRAM — 1941

The Committee on Scientific Work through its chairman, Dr. Herbert E. White, has mailed to each member of the State Medical Association a letter outlining the routine to follow in making application for a place on the program of the Sixty-eighth Annual Meeting to be held in Jacksonville, April 28-30, 1941. Members desiring to read papers at the next annual convention should make application prior to January 6, 1941, as no paper will be accepted after that date.

The Committee desires papers that are worth while, interesting and well prepared, and that deal with the various specialized fields as they relate to the general practice of medicine. It is important that applications be forwarded as early as possible, for the task of reviewing carefully all papers submitted and selecting those that will make up a program of varied interest, arranging for proper representation from all parts of the state, will require a great deal of time and study. Members wishing to apply for a place on next year's scientific program are requested to follow closely the outline of procedure as indicated below.

1. Submit a paper on any subject in which you are particularly interested. (We are anxious to get papers that contain origi-

nal thought or new ideas in medicine; possibly a paper read before your county medical society.)

2. Name two members whom you desire to serve as discussors.
3. No paper shall occupy more than 15 minutes in its time of delivery.
4. Mail your paper (preferably in full) or a 500-word synopsis of it to the chairman of the Committee on Scientific Work, P. O. Box 1018, Jacksonville, so that it will arrive not later than January 6, 1941. No paper will be accepted after that date.

## MEDICAL PREPAREDNESS

The Army and Navy have requested the doctors of the nation through the American Medical Association to cooperate in selecting men for the new army who will be chosen from those who registered on October 16, 1940. There are other activities also in which we must be of service to the nation, both to the citizens at home and to the men in our defense forces. As the initial step in this work, a meeting was held in Chicago at the headquarters of the American Medical Association on September 20, 1940. Representatives of the Army, Navy, Public Health Services and various divisions of the American Medical Association were present. The medical needs of both the army and the civilian population and the means by which the doctors can help to meet these needs were discussed. Your state representative, Dr. Edward Jelks, was proud to report the progress which has been made in Florida.

Perhaps it would not be out of place for us to review at this time what has already been done. There has been appointed by the President of the United States, as the liaison between the Council of National Defense and military and organized medicine, a Committee which is composed of Dr. Irvin Abell, the three Surgeon-Generals and the Chairman of the National Research Council. Its immediate contact with organized medicine will be through the National Committee on Medical Preparedness of the American Medical Association, the personnel of which has been printed several times in the *Journal of the American Medical Association*. To serve under and function with this Committee, there has been appointed by each state president a state committee and these state commit-



tees in turn have formed local committees of the various component county medical societies. Thus, based upon the structure of organized medicine, there is now a very intimate connection between each doctor and his country's welfare—through the county committee, the state committee, the national committee, the liaison committee, and the Council of National Defense. It is the hope of every committee man that he may make some contribution in service to his country and to each doctor in organized medicine.

It is already known that physicians of the country will be called upon to help in the organization of the new army, for it is proposed that on each local draft board, of which there will be about 6,500 in the country, there will be one doctor whose duty it will be to examine registrants who have been selected by the board. There will be established also medical advisory boards to aid in settling questions of physical fitness in the doubtful cases. The personnel of both the local draft boards and the medical advisory boards are to be appointed by the President on the recommendation of the Governor. Your State Committee on Medical Preparedness has officially offered the assistance of organized medicine to the state authorities and has been assured that it will be called upon to help in the selection of the appointees to these boards.

The first service we can render to the Council of National Defense is to provide information about each individual doctor in the nation. In order to accumulate this information, the American Medical Association has sent a questionnaire to every doctor of medicine. Although the response to these has been very satisfactory in some sections, the general average is not good. The state reporting the highest returns was Nebraska with 88.3 per cent returns; the lowest reported only 40 per cent. Florida had a return of 64.1 per cent. After all reasonable efforts to secure these questionnaires have been exhausted, the Committee on Medical Preparedness of the American Medical Association must send to the military authorities some sort of report, and in regard to those who did not send in the requested information, it will have to rely upon the inadequate material contained in the Medical Directory of the American Medical Association. These incomplete data obviously will not be a satisfactory

description of a doctor's ability and standing and will be unfair both to the Council of National Defense and to the doctor himself; so let us urge you to *fill out your questionnaire and send it in at once.*

Be assured that the members of your County Committee want to be of any service possible to the members of the county medical society. They will receive information from time to time as to the activities of the various committees on medical preparedness. Elsewhere in this Journal there is printed a list of the various committees in Florida.

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### DISTRICT MEETINGS "D," "E," AND "F"

All arrangements have been made for the second series of three medical district meetings. Dr. Robert B. McIver, chairman of the Council, has completed the programs for the scientific sessions. The local committees on arrangements for the entertaining societies have met with Dr. Stewart Thompson, managing director of the Association, and formulated plans for entertainment of the doctors, guests and ladies. Printed programs were mailed from the Association's home office to all the members of the three districts a week or ten days in advance of the meetings.

This will be the fourth annual meeting in each medical district. The attendance has increased steadily from year to year as the doctors realize that this is a splendid opportunity to meet their colleagues informally; to enjoy a program of good scientific papers, which this year includes a guest speaker from some other medical district in the state, and to become better acquainted with the officers of the State Association. Following are the places and dates of each of the three medical district meetings and the names of members of the local committees on arrangements.

DUNEDIN—October 31. Local committee on arrangements: Drs. J. A. Mease, Jr., chairman; H. E. Winchester and E. M. Harrison.

FORT PIERCE—November 1. Local committee on arrangements: Drs. H. D. Clark, chairman; R. C. Boothe and M. D. Council.

CORAL GABLES — November 2. Local committee on arrangements: Drs. Herman Boughton, M. M. Coplan, and Hillard W. Willis, co-chairmen.

## MEDICAL MEETINGS ARE OPEN TO MILITARY DOCTORS

Many physicians in the United States military service are moving from one location to another in Florida. It is suggested that the various county medical societies in Florida contact such doctors, as the opportunity arises, and invite them to attend medical meetings. Unless they possess Florida licenses to practice medicine, they are, of course, not eligible for membership in the State Association. However, there are many medical questions of mutual interest and the officers of your Association feel that while a doctor in military service is in your locality he should be invited to attend your county medical society meetings and take part in the discussions, even though he would not have the rights of a voting member.

## WARNINGS

Physicians in Alabama and Tennessee have complained that a Mr. C. W. Myers, who claims to be representing F. A. Davis Company of Philadelphia, has taken orders for books, collected for them at the time and failed to deliver them.

He will probably attempt to continue his fraudulent operations in the southern states. Any information should be referred to the Better Business Bureau in your city or Philadelphia, or to F. A. Davis Company, 1914 Cherry St., Philadelphia.

Mr. C. W. Myers no longer represents Paul B. Hoeber, Inc., Medical Book Department of Harper and Brothers, and at no time has he had authority to collect money for the purchase of Hoeber medical books. As he probably still has some sales material from this firm, he may still be offering their books. Any doctor receiving a visit from this person is requested to notify Paul B. Hoeber, Inc., 49 East 33rd Street, New York, by collect telegram.

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- PINELLAS—Neil E. Funk, St. Petersburg, Chairman; L. M. Gable, St. Petersburg; F. H. Langley, St. Petersburg.
- POLK—Waldo Horton, Winter Haven, Chairman; W. F. Peacock, Bartow; J. W. Vaughn, Lakeland.
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Chairman; F. M. Watson, Chipley; George W. Car-  
ter, Chipley.

## BIRTHS AND MARRIAGES

### BIRTHS

Dr. and Mrs. W. L. Jennings of Daytona Beach an-  
nounce the birth of a son, William Logan, Jr., on August  
31, 1940.

\* \* \*

Dr. and Mrs. Don C. Robertson of Orlando announce  
the birth of a daughter, Mary Ann, on July 21, 1940.

\* \* \*

Dr. and Mrs. Young L. Hall, Jr., of Miami announce  
the birth of a son, Young Lafayette, III, on July 31.

### MARRIAGES

Dr. W. M. Hoover, Jr., of Miami and Miss Amelia  
Wylie were married on August 15.

## STATE NEWS ITEMS

Dr. Henry Fuller of Mulberry was the guest  
speaker at the local Kiwanis Club's weekly  
luncheon, Tuesday, August 13. Dr. Fuller's  
address covered the need for a full time county  
health unit, his arguments being based on mor-  
tality statistics.

\* \* \*

Dr. C. C. Box of Graceville spent the latter  
part of August visiting clinics, and vacationing  
in the North Carolina mountains.

\* \* \*

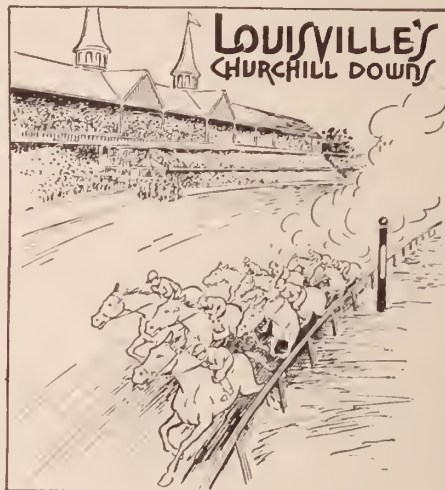
Dr. Meredith Mallory of Orlando was the  
principal speaker at the local Rotary Club  
meeting, August 12. Dr. Mallory's address  
was on the so-called socialized medicine.

\* \* \*

Dr. Harrison G. Palmer of St. Petersburg  
returned in September from a five weeks vaca-  
tion spent in North Carolina, Michigan and  
Ohio. He attended a number of clinics while  
away.

\* \* \*

Dr. M. A. Lischkoff of Pensacola is enjoying  
his fall vacation in New York City.



AS "the Derby" determines the winner  
among equestrian thoroughbreds, so  
each meeting of the Southern Medical Asso-  
ciation becomes more established as a con-  
sistent winner among the thoroughbred med-  
ical meetings. See another winner when  
the Southern Medical Association meets in  
Louisville, Kentucky, November 12-15, 1940.

MEDICALLY, there may be expected the  
usual fine programs and entertainment  
that distinguish the annual meetings of the  
Southern Medical Association from the oth-  
ers. Ten general clinical sessions, nineteen  
sections, the three independent medical so-  
cieties meeting conjointly, and outstanding  
scientific and technical exhibits are assur-  
ance that every phase of medicine and sur-  
gery will be available.

REGARDLESS of what any physician may  
be interested in, regardless of how general  
or how limited his interest, there will be at  
Louisville a program to challenge that in-  
terest and make it worth-while for him to  
attend.

ALL members of state and county medical  
societies in the South are cordially in-  
vited to attend. And all members of state  
and county medical societies in the South  
can be and should be members of the South-  
ern Medical Association. The annual dues  
of \$4.00 include the Southern Medical Jour-  
nal, a fine publication recognized as a  
valuable instrument to physicians of the  
South in the pursuit of their professional  
careers.

### SOUTHERN MEDICAL ASSOCIATION

Empire Building  
BIRMINGHAM, ALABAMA



Train schedules and railroad fares from various cities in Florida to Louisville, Ky., where the annual meeting of the Southern Medical Association will be held, appear on page 207 of this Journal. Note advertisement of the Atlantic Coast Line, Central of Georgia, and Louisville & Nashville Railroads.

\* \* \*

Dr. George M. Green has started construction of a 10 bed hospital as an addition to his office in Daytona Beach. It will be of modern design, concrete construction. The building will be completed in about three months.

\* \* \*

Dr. T. Hartley Davis of Shamrock announces the opening of offices for the practice of general medicine at Bradenton, October 1, 1940.

\* \* \*

The Association's Committee on Legislation and Public Policy met at the Thomas Hotel, Gainesville, Sunday, September 29. This was the first official meeting of the Committee since the annual meeting in Tampa. Those present were Drs. J. Maxey Dell, chairman; W. C. McConnell, H. D. Van Schaick and B. M. Rhodes. Advisory members were Drs. J. Sam Turberville, president, and Stewart Thompson, managing director.

\* \* \*

Dr. J. Maxey Dell, Jr., of Gainesville presented an exhibit at the meeting of the American Roentgen Ray Society, October 1 to 4, inclusive, at Boston. The exhibit was on the x-ray diagnosis and treatment of chronic sinus disease in infants and children. It consisted of 30 cases taken from a series of 85 cases illustrated by films taken before and after treatment; also a follow-up history of from nine months to two years, from Dr. Dell's experience.

\* \* \*

The name of the late Dr. Joseph Y. Porter was honored recently by the Key West Housing Authority. The white project which will consist of 136 family units situated on the property now purchased on Trumbo Island, bounded by the extension of White Street beyond Eaton Street and the western boundary of the navy air field, will be known as Joseph Y. Porter Place. The late Dr. Joseph Y. Porter was state health officer for some thirty years, a member of the local county medical society, the State Medical Association and the American Medical

Association. Dr. Porter died on March 16, 1927 at the age of 80 years.

\* \* \*

Dr. John A. Simmons of Arcadia has spent a month's vacation in Waynesville, N. C., Niagara Falls and Buffalo, N. Y., Canada, Washington, Virginia and South Carolina.

\* \* \*

Dr. E. J. Melville of St. Petersburg returned home recently after a four month stay at Melville's Landing on Lake Champlain.

\* \* \*

Dr. Charles L. Park of Sanford shattered 10 out of 15 targets to win the first competitive shooting in Mo-skeet-o, a pygmy skeet range, at the barbecue given by the Orange County Medical Society, August 8.

\* \* \*

Dr. W. L. Shackleford of West Palm Beach was a state delegate to the 42nd annual convention of the American Hospital Association, held in Boston, the middle of September.

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## COMPONENT COUNTY SOCIETIES

### DADE

The regular monthly meeting of the Dade County Medical Society was held on Wednesday, September 4, at the Holsum Baking Company building. Dentists and druggists of Dade County were guests. The group was conducted through the plant after which a buffet supper was served by the bakery. The program which followed consisted of 2 papers:

"A Study of Peripheral Vascular Disease in the Negro" by Dr. S. Charles Werblow; discussed by Drs. E. Sterling Nichol and Max Dobrin.

"The Clinical Application of Some Newer Forms of Vitamin Therapy" by Dr. James L. Anderson; discussed by Drs. Paul Kells and William H. Izlar.

\* \* \*

### DUVAL

The October meeting of the Duval County Medical Society was held on the evening of the 1st in the Library of the State Board of Health. Dr. Robert M. Baker presented a paper on "New and Advanced Methods in the Treatment of Specific Urethritis" which was discussed by Drs. E. T. Sellers and E. W. Veal. A business meeting was then held after which refreshments were served.

## JACKSON

The Jackson County Medical Society held its regular meeting on Tuesday, August 27. Following a dinner at the Hotel Chipola, a scientific program was presented:

"The Ethical Relationship of Doctor and Patient", Dr. J. Sam Turberville, Century. "The Medical and Surgical Management of Splenic Anemia", Dr. D. A. McKinnon, Jr., Mayo Clinic, Rochester.

"Carcinoma of the Cervix Complicating Pregnancy", Dr. R. N. Joyner, Marianna.

Several guests were present: Drs. R. D. Crawford, J. T. Ellis and S. G. Latiolais of Dothan, Ala.; Drs. W. G. Miles and C. K. Hayes of Chattahoochee.

\* \* \*

## PASCO-HERNANDO-CITRUS

Dr. and Mrs. S. C. Harvard of Brooksville entertained the Medical Society at their home Thursday evening, September 12. A grilled steak dinner was served after which a scientific meeting was held.

The Pasco-Hernando-Citrus County Committee on Preparedness was appointed after discussion, said committee consisting of Drs. W. H. Walters, Lacoochee; S. C. Harvard, Brooksville; and George Dame, Inverness.

Dr. W. H. Walters spoke on the Civic Health Council of Pasco County and explained what was being accomplished by this organization. Reports on interesting cases were given and discussed.

Present were: members—Drs. C. L. Carter, G. R. Creekmore, S. C. Harvard, W. W. Jones, W. H. Walters; visitors—Drs. R. P. Fike and Bobby Hodges of Atlanta.

\* \* \*

## PINELLAS

Dr. C. C. Rudolph of St. Petersburg was principal speaker at the meeting of the Pinellas County Medical Society held on the evening of September 6. His subject was "Roseola Infantum alias Exanthem Subitum".

On the evening of September 20, members of the society, their ladies and friends gathered at the Penguin Club to honor the retiring president and his wife, Dr. and Mrs. John A. Herring. After a social hour, a steak dinner was served.

## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**Occupational Dermatitis Due to Mint, SAMS, WILEY MITCHELL, Miami, *Arch. Dermat. & Syph.* 41: 503-505 (March), 1940.**

Two patients, both bartenders at Miami Beach, were found to have a contact dermatitis, involving mainly the fingers and hands. Patch tests, involving all materials used in mixed drinks, were performed and both were positive only to mint. Proscription of mint handling resulted in quick cessation of symptoms.

An interesting feature was that only in Florida were they annoyed with this dermatitis. This was ascribed to the fact that here "horse" mint or *Mentha citrata* was used while in the North, the common mint used for mixed drinks was *Mentha vera* which apparently has less eczematizing properties than the *citrata*.

**Productive Aortitis with Multiple Aneurysms in a Child, NEIMAN, BENJAMIN H., Chicago, and MARKS, MEYER B., Miami, *Am. J. Dis. Children* 59: 571-578 (March), 1940.**

The patient was first seen in March, 1935, at which time she presented pustules with necrotic centers over the face, buttocks, and tibia. The Mantoux test was positive 1-10,000. The Wassermann was negative. Diagnosis at this time was pulmonary tuberculosis with papulonecrotic tuberculids.

In November she began having attacks of dyspnea and slight elevation of temperature. Both the head and neck were swollen and full. The lips were swollen and cyanotic. The veins of the neck were engorged, and the eyes were prominent. The fingers and toes were cyanotic and showed definite clubbing. The radial, brachial and axillary pulse were absent. There was marked precordial pulsation and the cardiac dulness was widened transversely.

Roentgenological reexamination showed a mediastinal mass projecting into the upper fields of the left lung and increasing gradually in size in succeeding films. Death occurred nine months after the initial admission. Wassermann tests on the father and mother were negative.



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The essential findings at autopsy were multiple aneurysms involving the thoracic aorta, one of which impinged on and partially compressed the left subclavian artery.

Microscopically, there was fibrotic thickening of the intima, degeneration and fibrosis of the media and diffuse sclerosing inflammation of the adventitia, all of which was characteristic of syphilitic aortitis in the acquired form of the disease. In the absence of serological confirmation and the negative family history, the authors were unable to conclude that this was definitely syphilitic in origin and discussed also the possibility of a rheumatic origin for the condition.

## BOOKS RECEIVED

*Acknowledgment of books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.*

**NEW AND NONOFFICIAL REMEDIES, 1940**, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1940. Cloth. Price, postpaid, \$1.50. Pp. 656-LXVIII. Chicago: American Medical Association, 1940.

Each year a revised list of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association as of January first is published in book form under the title of "New and Non-official Remedies." The book contains the descriptions of acceptable proprietary substances and their preparations, proprietary mixtures if they have originality or other important qualities, important nonproprietary non-official articles, simple pharmaceutical preparations, and other articles which require retention in the book.

A list of articles and brands accepted by the Council, but not described, is included in the book to cover simple preparation or mixtures of official articles (U. S. P. or N. F.) marketed under descriptive, nonproprietary names for which only established claims are made. Diagnostic reagents which are not used in or on the human body, and protein diagnostic preparations are not included in New and Nonofficial Remedies unless the determination of the status of these products by the Council has been requested by the distributor: If such products are found to be marketed in accordance with the Council's rules, they may be included in the list of undescribed, but acceptable articles.

New and Nonofficial Remedies is a practical and condensed text of pharmacology and therapeutics; it contains scientifically elaborated standards for all accepted non-official drugs; its Index to Distributors is a list of manufacturers, a large number of whose products have met the Council's high standards; its Bibliographical Index is a storehouse of references to reports which have been made mainly on unaccepted and unacceptable drugs; its prefatory material contains the Council's "Rules," a time-tested and reliable set of basic principles for the furtherance of scientific and rational medicine.

A supplement to the annual volume of New and Non-official Remedies is published twice a year to bring up to date such current revisions and additions as have been necessary since its last publication. Every product included in the book is subject to the official rules of the Council. The comments to rules are changed occasionally

by way of clarifying interpretation to insure fair consideration of all submitted preparations as new standards are recognized. Such constant and critical consideration of its contents provides the physician with a valuable reference list of acceptable new preparations on which to base his selection for use in treatment according to the established current practices of the profession.

The 1940 New and Nonofficial Remedies, of course, contains the revisions which appeared in the supplements for the 1939 edition, and continues the plan of grouping together articles having similar composition or action under a general discussion. These discussions have undergone considerable revision in the 1940 edition. Further revision of statements regarding the actions, uses, dosage, composition, purity, identity, strength or physical properties of many of the articles has also been necessary in some cases. Noteworthy revisions are those of the chapter on Liver and Stomach Preparations, radically rewritten and including a statement of requirements suggested by findings of the Anti-Anemia Preparations Advisory Board of the U. S. Pharmacopeia; the subsection Tuberculins, entirely rewritten to conform to newer knowledge in this field; and the chapter Allergenic Protein Preparations, the name of which has been changed to Allergenic Preparations. Minor but relatively important revisions are found in the articles: Bismuth Compounds, Serums and Vaccines, and Vitamins and Vitamin Preparations for Prophylactic and Therapeutic Use.

The indices of the new volume of New and Nonofficial Remedies are of the same order and plan as in previous editions. A general index lists accepted articles, including those not described. This is followed by an index to distributors in which appear all the Council accepted articles listed under their respective manufacturers. Finally, a bibliographical index is added for listing proprietary and unofficial articles not included in N. N. R. This includes references to the Council publications concerning each such article as has appeared in The Journal of the A.M.A., Reports of the Council on Pharmacy and Chemistry, Propaganda for Reform, Vol. 1 and 2, or Reports of the A.M.A. Chemical Laboratory.

\* \* \*

**THE UNSEEN PLAGUE: CHRONIC DISEASE.** By ERNST P. BOAS, M. D., Chairman of the Committee on Chronic Illness, Welfare Council of New York City; Assistant Clinical Professor of Medicine, Columbia University. This book consists of a review of the extent of chronic diseases in the community and their effect on the social structure; also a summary and appraisal of the present methods of medicinal and social care. It is based on twenty years of active participation in the field and is intended to serve as a basis for planning and action by government, community, physician and individual. Cloth, pp. 121, price \$2.00. New York, J. J. Augustin, Inc. 1940.

\* \* \*

**THE MARCH OF MEDICINE.** New York Academy of Medicine, Lectures to the Laity, No. 4. For some years the New York Academy of Medicine has sponsored highly successful popular lectures on interesting phases of medical history as seen with the perspective of modern medicine. These lectures bring out the highlights of medical progress. Gathered together here in book form, those for 1938 and 1939 make an exceedingly entertaining volume. In content they range from the subject of health in Elizabethan England to the romance of modern surgery. And while this work is sufficiently authoritative to prove of value to medical men implemented and enriched with a knowledge of the history of their profession, it is sufficiently simple and clear to prove of special value to those who have marginal interest in medicine such as biology teachers, health educators, instructors in physical education, nurses, scientists, and technicians. Cloth, pp. 168, price \$2.00. New York: Columbia University Press, 1940.



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CHEMOTHERAPY AND SERUM THERAPY OF PNEUMONIA. By FREDERICK T. LORD, M. D., Clinical Professor of Medicine, Emeritus, Harvard Medical School; ELLIOTT S. ROBINSON, M. D., Ph.D., Director, Division of Biologic Laboratories, Massachusetts Department of Public Health, and RODERICK HEFFRON, M. D., Medical Associate, the Commonwealth Fund. This manual replaces the widely used *Pneumonia and Serum Therapy* by Lord and Heffron. It brings up to date the material on serum therapy, presents full information about the use of sul-fapyridine, and gives in concise, usable form a rounded discussion of specific drug and serum treatment of pneumonia due to various organisms. Cloth, pp. 173, price \$1.00. New York: The Commonwealth Fund, 1940.

\* \* \*

GRADUATE MEDICAL EDUCATION IN THE UNITED STATES: CONTINUATION STUDY FOR PRACTICING PHYSICIANS, 1937 to 1940. By the Council on Medical Education and Hospitals of the American Medical Association. This book contains complete information on available graduate medical education in the United States. It is divided into the following sections: Progress in Graduate Medical Education; Continuation Study for Practicing Physicians in the United States, 1937 to 1940; Reports on States Having Representative Programs; Comments on Continuation Studies. There are complete tables on Continuation Courses for Practicing Physicians 1938-1939 showing where ample facilities are located; and on Clinical Conferences, Graduate Assemblies and Study Courses of Less than Five Days, 1938-1939. Paper, pp. 243. Chicago: American Medical Association, 1940.

\* \* \*

THE COMPLETE PEDIATRICIAN. Third Edition. By W. C. DAVISON, Professor of Pediatrics, Duke University; formerly Acting Pediatrician in Charge, the Johns Hopkins Hospital. This volume contains chapters on Diagnosis (the 164 pediatric symptoms and signs with the diseases which cause them); Diseases (complete symptomatology, differential diagnosis, incidence and prognosis of the 329 diseases of children); Treatment, Fluid and Blood Administration (what to give and how to do it); Feeding, Diets and Nutrition (infant and child feeding, diabetic, ketogenic, allergic, vitamin, constipation and obesity diets, complete food composition tables, and cooking recipes); Drugs and Prescriptions (dosage for every useful remedy); Laboratory Tests (202 of the best practical methods are described); Preventive Measures and Child Care (how to eliminate many of the conditions which annually kill 240,000 American children); Growth, Development and Guidance of Children (the facts which every physician, nurse and mother should know); and Instructions for Taking Histories and Making Physical Examinations. Cloth, pp. 256, price \$3.75. North Carolina: Duke University Press, 1940.

\* \* \*

PSYCHOLOGICAL AND NEUROLOGICAL DEFINITIONS AND THE UNCONSCIOUS. By SAMUEL KAHN, M. D., Ph. D., on Psychiatric Staffs of the New York State Psychiatric Institute and Mount Sinai Hospitals. This is a comprehensive psychological dictionary with emphasis on unconscious psychological and psychoanalytical terms. It also includes chapters on the Unconscious, on Psychoanalysis and on History and Philosophy of certain psychological material. The bibliography at the end of the book is voluminous and covers the field thoroughly, including most of the important psychological books which have been published or translated into English. Cloth, pp. 219, price \$2.00. Boston: Meador Publishing Company, 1940.

## ADVERTISERS' NOTES

Colored reproductions of Dean Cornwell's new painting, "Osler at Old Blockley," suitable for framing, may be obtained free of charge from John Wyeth & Brother, Inc., 1600 Arch Street, Philadelphia, Pa. Send for your picture today.

### ANY PHYSICIAN MAY EXHIBIT "WHEN BOBBY GOES TO SCHOOL" TO THE PUBLIC

Under the rules laid down by the American Academy of Pediatrics, their new educational-to-the-public film "When Bobby Goes to School" may be exhibited to the public by any licensed physician in the United States.

All that is required is that he obtain the endorsement by any officer of his county medical society. Endorsement blanks for this purpose may be obtained on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

Such endorsement, however, is not required for showings by licensed physicians to medical groups for the purpose of familiarizing them with the message of the film.

"When Bobby Goes to School" is a 16-mm. sound film free from advertising, dealing with the health appraisal of the school child, and may be borrowed without charge or obligation on application to the distributor, Mead Johnson & Company, Evansville, Indiana.

### A METHOD OF NUTRITIONAL PROTECTION DURING SENESENCE

During senescence, many conditions are prevalent which tend to prevent the adequate utilization of a well balanced diet. Degenerative processes, voluntary or required dietary restrictions and organic disease, especially if it occurs in the gastrointestinal tract, all play an important role in interfering with proper digestion, absorption and assimilation. In this manner, they pave the way for nutritional deficiency states.

It is generally recognized that an adequate, energy-producing and nutritional protective diet is an essential requirement during old age. However, since an ample dietary regimen is usually not well tolerated by this type of individual, a fortified food drink was used as a supplement to their regular therapy. The purpose of this supplementary feeding was two-fold; first to supply essential vitamin mineral elements and secondarily, by using it as a flavoring agent to act as an incentive to these individuals to drink the required amounts of milk.

Thirty senile individuals having a variety of gastrointestinal disturbances were given Cocomalt as a food drink. It was found that the product was well liked, well tolerated and did not cause any aggravation of their symptoms. In most instances, during one month of observation, there was an improvement in the red blood cell count and per cent hemoglobin, an increase in appetite and a moderate gain in weight. It was found that the ability to tolerate milk was greatly enhanced by its use.

In conclusion, it may be said that the fortified food drink (Cocomalt) by itself may have limited therapeutic value. However, when used as a supplement to the regular necessary treatment, it is no doubt a valuable method in supplying essential vitamin-mineral elements in a pleasant form.

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## STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville ..	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:		Stewart Thompson, Jacksonville....	Tallahassee, 1941
A—Northwest .....	B. A. Wilkinson, Tallahassee ..	" " "	Gainesville, 1941
B—North Central .....	William S. Nichols, Lake City ..	" " "	St. Augustine, 1941
C—Northeast .....	Robt. B. McIver, Jacksonville ..	" " "	Dunedin, Oct. 31, 1940
D—Southwest .....	W. C. McConnell, St. Petersburg ..	" " "	Ft. Pierce, Nov. 1, 1940
E—South Central .....	A. M. Sample, Ft. Pierce .....	" " "	Miami, Nov. 2, 1940
F—Southeast .....	Kenneth Phillips, Miami .....	D. L. Cannon, Montgomery .....	Mobile, Ala., Apr. 15-17, 1941
Alabama Medical Association .....	Samuel A. Gordon, Marion .....	E. D. Shanks, Atlanta .....	Macon, May 13-16, 1941
Georgia, Medical Assn. of .....	J. C. Patterson, Cuthbert .....		
Florida—		Kenneth Phillips, Miami .....	Jacksonville, 1941
Chapter, Am. College Phys. ....	Louie M. Limbaugh, Jacksonville ..	E. C. Lunsford, Miami .....	St. Petersburg, Nov., 1940
State Dental Society .....	E. B. Penn, Miami .....	Lauren M. Sompayrac, Jacksonville ..	Jacksonville, 1941
Soc. of Derm. and Syph. ....	Alan Brown, Jacksonville .....	J. S. Stewart, Miami .....	
East Coast Medical Association .....	I. M. Hay, Melbourne .....	Mr. T. F. Alexander, Jacksonville ..	New Orleans, 1941
State Hospital Association .....	W. L. Shackelford, W. Palm Bch. ..	T. H. Roberts, Lakeland .....	Jacksonville, 1941
Assn. of Industrial Surgeons .....	A. M. Bidwell, Tampa .....	Chairman	
Medical Postgraduate Course .....	Turner Z. Cason, Jacksonville .....	Carl E. Dunaway, Miami .....	Jacksonville, 1941
Soc. of Ophthal. & Otol. ....	H. Marshall Taylor, Jacksonville ..	Mrs. Phyllis Leonard, St. Augustine ..	
State Nurses Association .....	Mrs. M. Stetson, St. Petersburg ..	G. N. Leonard, Miami Beach .....	Fall, 1940
Pediatric Society .....	Warren W. Quillian, Coral Gables ..	Mr. A. W. Morrison, Miami .....	
Pharmaceutical Association .....	Mr. S. F. Harris, Jacksonville .....	E. M. L'Engle, Jacksonville .....	Tampa, Dec. 5-7, 1940
Public Health Association .....	A. B. McCreary, Jacksonville .....	E. M. Hendricks, Ft. Lauderdale ..	Jacksonville, 1941
Radiological Society .....	J. H. Lucinian, Miami .....	W. C. Page, Cocoa .....	Jacksonville, 1941
Railway Surgeons' Association .....	Leland F. Carlton, Tampa .....	Mrs. C. R. Whitaker, Eustis .....	
Tuberculosis & Health Assn. ....	Mr. E. M. Newald, Orlando .....	Robert B. McIver, Jacksonville ..	Jacksonville, July 8-10, 1941
Watahoochee Valley Med. Assn. ....	Frank K. Boland, Atlanta .....	C. C. Rouse, Mobile .....	
Half Coast Clinical Society .....	I. H. Dodson, Mobile .....	Kenneth Phillips, Miami .....	Chattanooga, May, 1941
E. Sec., Am. Cong. Phys. Ther. ....	E. C. MacCordy, St. Petersburg ..	Howard Hailey, Atlanta .....	
Southeastern Derm. Assn. ....	Jack Jones, Atlanta .....	B. T. Beasley, Atlanta .....	Richmond, Va., Mar., 1941
Southeastern Surgical Congress .....	Irvin Abell, Louisville .....	Mr. C. P. Loran, Birmingham ..	Louisville, Ky., Nov. 12-15, 1940
Southern Medical Association .....	Arthur T. McCormack, Louisville ..	H. S. Howell, Lake City .....	
Wanwanee River Medical Society .....	T. H. Bates, Lake City .....		



## COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	Amsie H. Lisenby, M.D. Panama City	William C. Roberts, M.D. Panama City		11	100%	A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1463 Pensacola	2nd Tuesday 8:00 P. M.	45	42	
	Walton-Okealoosa	A. G. Williams, M.D. Lakewood	R. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	Northwest District (A) Pensacola Oct. 5, 1940
	Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		8	7	
	Franklin-Gulf	Thos. Meriwether, M.D. Wewahitchka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7	100%	A-2-'41 B. A. Wilkinson, M.D. Tallahassee
	Jackson *Cathoun	W. R. Wandeck, M.D. Marianna	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	12	10	
B	Leon-Gadsden-Liberty- Wakulla-Jefferson	Francis T. Holland, M.D. 208 Midyette-Moor Bldg. Tallahassee	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	40	38	
	Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	14	8	B-3-'41 W. S. Nichols, M.D. Lake City
	Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		9	5	
	Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	8	7	
	Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30	22	B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion *Levy	Henry C. Dozier, M.D. 9 No. Magnolia St. Ocala	It. C. Cumming, M.D. Commercial Bank Bldg. Ocala	3rd Thursday 12:30 P. M.	24	100%	North Central District (B) Lake City Oct. 4, 1940
C	Pasco-Hernando- Citrus	Wm. H. Walters, Jr., M.D. Lacoochee	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	100%	
	Duval *Clay, Nassau	Chas. B. Mahry, M.D. 439 St. James Bldg. Jacksonville	Lauren M. Sompavrac, M.D. 439 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	179	178	C-5-'41 R. B. McIver, M.D. Jacksonville
	St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10	100%	N. E. District (C) Daytona Beach Oct. 3, 1940
	Putnam	G. M. Zeagler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	12	11	C-6-'42 Maximilian Stern, M.D. Daytona Beach
	Volusia *Flagler	L. V. L. Brown, M.D. DeLand	R. L. Miller, M.D. 258½ S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	42	35	
	Hillsborough	John R. Boling, M.D. 1207 First Nat. Bk. Bldg. Tampa	James S. Grable, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	111	100	D-7-'41 W. C. McConnell, M.D. St. Petersburg
D	Manatee	M. M. Harrison, M.D. Professional Bldg. Bradenton	W. E. Wentzel, M.D. Box 245 Bradenton	3rd Tuesday 7:00 P. M.	14	100%	
	Pinellas	John A. Herring, M.D. 259 Third St., No. St. Petersburg	W. C. McConnell, M.D. 213 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	105	100%	Southwest District (D) Dunedin Oct. 31, 1940
	Sarasota	Millard B. White, M.D. 151 S. Pineapple Ave. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	16	11	
	DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorom, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	100%	D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	A. S. Byle, M.D. 311 2nd St. Fort Myers	Fred D. Bartleson, M.D. Fort Myers	3rd Friday 7:30 P. M.	14	100%	
	Polk	Henry Fuller, M.D. Mulberry	Jere W. Annis, M.D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62	59	
E	Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Wednesday	12	11	E-9-'42 J. R. Chappell, M.D. Orlando
	Lake *Sumter	W. L. Ashton, M.D. Umatilla	Oliver Emerson, M.D. Tavares	1st Thursday 12:30 P. M.	18	14	
	Orange *Osceola	Chas. J. Collins, M.D. 209 Exchange Bldg. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	85	84	South Central District (E) Ft. Pierce Nov. 1, 1940
	Seminole	Wade H. Garner, M.D. Sanford	Douglas G. Scott, M.D. 212 N. Park Ave. Sanford	2nd Monday 7:00 P. M.	13	100%	
	St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	19	100%	E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	L. R. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	38	100%	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	James H. Pittman, M.D. Box 602 W. Palm Beach	C. Jennings Derrick, M.D. Box 574 W. Palm Beach	4th Monday 8:00 P. M.	64	100%	
	Dade	Joseph S. Stewart, M.D. 525 duPont Bldg. Miami	Franz Stewart, M.D. 525 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	312	261	F-12-'41 Kenneth Phillips, M.D. Miami
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. It. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	S. E. District (F) Miami Nov. 2, 1940

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MEDICAL DIRECTOR

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# BRIEF HISTORICAL NOTES

## ON

# MEAD'S CEREAL AND PABLUM

---

**H**AND in hand with pediatric progress, the introduction of Mead's Cereal in 1930 marked a new concept in the function of cereals in the child's dietary. For 150 years before that, since the days of "pap" and "panada," there had been no noteworthy improvement in the nutritive quality of cereals for infant feeding. Cereals were fed principally for their carbohydrate content.

The formula of Mead's Cereal was designed to supplement the baby's diet in minerals and vitamins, especially iron and B<sub>1</sub>. How well it has succeeded in these functions may be seen from two examples:

(1) As little as one-sixth ounce of Mead's Cereal supplies over half of the iron and more than one-fifth of the vitamin B<sub>1</sub> minimum requirements of the 3-months-old bottle-fed baby. (2) One-half ounce of Mead's Cereal furnishes all of the iron and two-thirds of the vitamin B<sub>1</sub> minimum requirements of the 6-months-old breast-fed baby.

That the medical profession has recognized the importance of this contribution is indicated by the fact that cereal is now included in the baby's diet as early as the third or fourth

month instead of at the sixth to twelfth month as was the custom only a decade or two ago.

In 1933 Mead Johnson & Company went a step further, improving the Mead's Cereal mixture by a special process of cooking, which rendered it easily tolerated by the infant and at the same time did away with the need for prolonged cereal cooking in the home. The result is Pablum, an original product which offers all of the nutritional qualities of Mead's Cereal, plus the convenience of thorough scientific cooking.

During the last ten years, these products have been used in a great deal of clinical investigation on various aspects of nutrition, which have been reported in the scientific literature.

Many physicians recognize the pioneer efforts on the part of Mead Johnson & Company by specifying Mead's Cereal and PABLUM.

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Pablum is a palatable mixed cereal food, vitamin and mineral enriched, composed of wheatmeal (farina), oatmeal, cornmeal, wheat embryo, beef bone, brewers' yeast, alfalfa leaf, sodium chloride, and reduced iron.



# The JOURNAL of the Florida Medical Association, Inc.

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## CONTENTS

Management of the Breast Fed Baby, Including Immunization Procedures, Ludo von Meysenbug, M. D., Daytona Beach	229
Climate and Altitude in the Treatment of Hypertension and Myocardial Failure D. Paul Bird, M. D., Lakeland	235
Uterus Bicornis Unicollis John W. Snyder, M. D., Miami	236
Cooperative Roentgenotherapy, Charles M. Gray, M. D., Tampa	240
Role of the Unrecognized Typhoid Carrier in the Transmission of Typhoid Infection Harry B. Smith, M. D., Tavares	242
Editorials: Local Board Appointments—Selective Service; Health and Medical Committee Announces its Subcommittees; A. M. A. Broadcasts	247
Examination for Army Medical Corps	248
Georgia Pediatric Society	248
Correspondence	249
Births, Marriages and Deaths	249
State News Items	249
Southern Psychiatric Association	252
Medical District Meeting "A"	252
Medical District Meeting "B"	253
Medical District Meeting "C"	254
Component County Societies	255
Abstract Department	256
Books Received	258
Advertisers' Notes	258
Woman's Auxiliary	260
State and Sectional Meetings	265
Component Societies by Districts	266

## NEXT SESSIONS

American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, St. Louis, November, 1941

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\*Petrolagar—The trademark of Petrolagar Laboratories, Inc., for its brand of mineral oil emulsion—liquid petrolatum 65cc. emulsified with 0.7 Gm. agar in a menstruum to make 100 cc.

# *The Effectiveness of* AMNIOTIN



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SYMPTOMS IS AN  
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<sup>1</sup> Sevringhaus, E. L., and Evans, J. S.: *Am. J. M. Sc.* 178:638, Nov. 1929.

<sup>2</sup> Novak, Emil: *Surg. Gynec. & Obst.* 70:124, Jan. 1940.

<sup>3</sup> Schneider, P. F.: *Am. J. Obst. & Gyn.* 37:861, May 1939.

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# NEW STUDY\*—AGAIN PROVES THE VALUE OF COCOMALT

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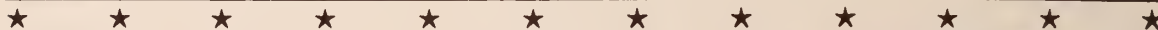
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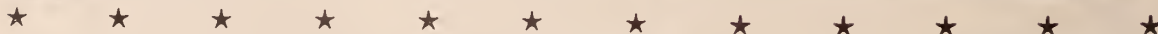
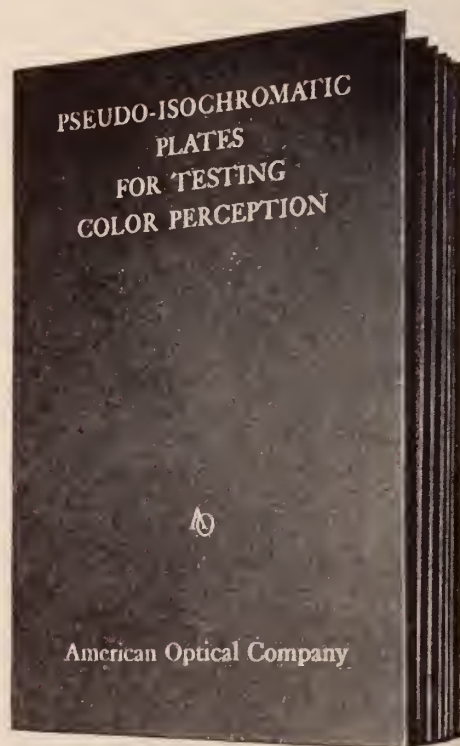
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**CLINICAL CONFIRMATION:\*\*** When *smokers* changed to Philip Morris, every case of irritation of the nose and throat due to smoking cleared completely or definitely improved.

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\*N. Y. State Journ. Med. 35 No. 11, 590. \*\*Laryngoscope 1935, XLV, No. 2, 149-154

## *STUDIES IN THE AVITAMINOSES*



This page is the eleventh of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the November 9 issue of The Journal of the American Medical Association.

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great loss of blood, may be prolonged and difficult to control. The gum necrosis is usually accompanied by dental porosity. In the advanced stages of scurvy, the teeth are loosened due to destruction of the alveolar process, and the ulcerative lesions may extend to the mucous membrane of the cheeks and tongue. Gangrene has been described as a sequel of advanced untreated scurvy.





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Chart,<sup>1</sup> showing general tendency toward reduction in mortality rate as initial dose of diphtheria antitoxin is increased:

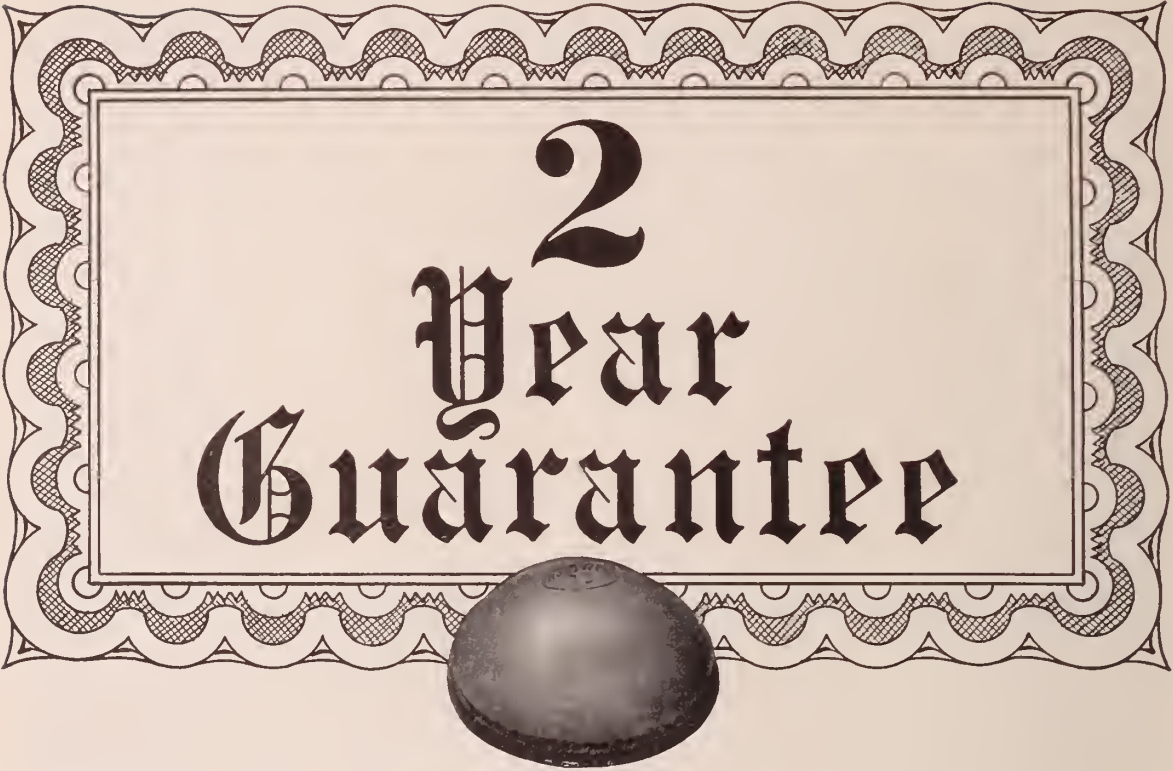
Hospital	Average Primary Dose	Mortality Percentage
A	9,000	7.81
B	13,700	3.84
C	15,000	5.43
D	16,000	4.40
E	17,000	2.87
F	22,000	2.66

1. Brit. M. J., 2:1132, Dec. 19, '31

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## MANAGEMENT OF THE BREAST FED BABY, INCLUDING IMMUNIZATION PROCEDURES

Ludo von Meysenbug, M. D.  
Daytona Beach

### BREAST FEEDING

It should be unnecessary to remind any audience composed of present day physicians that the ideal food for a baby is its own mother's milk; yet there is certainly an increasing tendency, not only on the part of the laity but of the medical profession as well, to underestimate the importance of breast feeding and to over-emphasize the value of artificial food. As an illustration of this tendency, witness the myriad baby foods on the market today.

Perhaps the fact that present day knowledge of nutrition and infant feeding is so much greater than that of two decades ago is responsible for the failure of many mothers to nurse their babies. In our larger cities the stress and strain of social life make nursing an increased burden which few women are willing to carry, and their consciences are at rest if their babies "do well" on the bottle. Little do these mothers realize that they are robbing their infants of their birthright.

But the mothers are not alone at fault; there are many physicians who specialize in weaning babies and writing formulae. Whether they do this to increase their work, or whether they sincerely believe that the bottle is better than the breast, I do not know. On the other hand, those of us who conscientiously insist on breast feeding have been called old fashioned by the modern young mothers who simply do not want the bother of nursing their babies.

Allow me to quote from one of Dr. Oliver Wendell Holmes' *Medical Essays* written in 1867:

A pair of substantial mammary glands has the advantage over the two hemispheres of the most learned professor's brain in the art of compounding a nutritious fluid for infants.

This is just as true today.

Attempts have been made to show how the method of early feeding may affect the develop-

ment of a child's character and conduct. Powers<sup>1</sup> said:

Maternal nursing, or at least the earnest desire to fulfill that function, is of vital importance in developing the normal emotional relationship between mother and child.

Childers and Hamil<sup>2</sup> studied the emotional problems of 469 children under thirteen years of age as related to the duration of breast feeding in infancy. Their tabulations seemed to show that undesirable behavior manifestations appeared most often in those who had been weaned between the first and sixth months of life; that they were found next in frequency in those who had never been breast fed; less often in those whose breast feeding had been continued to the "normal" period for weaning; and that the smallest percentage of undesirable traits appeared in the children whose breast feeding had been prolonged beyond the eleventh month. The statistical fallacies of this study are recognized, but the comparison of the four groups is quite interesting.

It is well to put the newborn baby to the breast ten hours after birth. Until the milk flow begins, generally on the third postpartum day, 2 ounces of a hydrating solution are given every four hours in order to prevent too great a loss of weight and inanition fever. I favor the following formula:

Knox gelatin	3 oz.
Dextrose	1 1-2 oz.
Sodium Chloride	1 teaspoonful.
Mix with 250 cc. cold water, then add 750 cc. freshly boiled hot water.	

When the flow of milk has been established the baby is put to the breast every three hours and allowed to nurse for twenty minutes. In this connection Levy<sup>3</sup>, in an interesting study of thumb-sucking in infancy, concluded that the percentage of finger-suckers was highest in infants fed every four hours, less in those fed every three hours, and least in those who were fed irregularly. A nursing after 10 p. m. is to be avoided from the start if possible; but in my experience the majority of young babies, especially if smaller than average, will not go through the night until 6 a. m., without demanding food. In such instances a 2 a. m. nursing is allowed, and I have found that after from four to six weeks the baby will break him-

Read before the Sixty-seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940.

self of this nursing if he has received enough nourishment during the day.

It is during the weeks soon after birth that some of our most disconcerting problems in breast feeding arise. During the first night home from the hospital the baby is apt to be very wakeful and to do a good deal of serenading in the small hours. This brings a call for the doctor who at this time is wise to allow the 2 a. m. nursing. This is done not only to quiet the baby but to prevent loss of milk in instances where the mother's breasts are full and leak easily in spite of binders.

Another problem encountered during the early weeks is that of the crying, fretful baby who does not sleep enough. Such a baby as a rule is not getting enough milk and this can be checked by weighing him before and after each nursing during a twenty-four hour period. At 2 weeks of age a baby should obtain an average of no less than 3 ounces of milk during each feeding.

The baby who spits a good deal or actually vomits causes no little concern. This may be due to the ingestion of too much milk which overloads the stomach and results in regurgitation of the overflow. Such a condition does no harm and it is unwise to cut the nursing time short for that would deprive the baby of the cream in the strippings and, further, would prevent thorough emptying of the breasts which is essential in maintaining a good supply of milk. Lengthening the intervals between feeding to four hours invariably corrects this type of regurgitation. When spitting or vomiting is not due to overfilling, further study is necessary. Though it is seldom that the quality of the mother's milk is at fault, an analysis should be made to determine the fat content. If this is too high a reduction in the fat constituents of the mother's diet, together with an increase of water, will generally effect the desired change in the milk.

Frequently faulty nursing technic causes the infant to regurgitate. If the baby has been crying a good deal he should be held up and allowed to belch before the nursing begins. Furthermore, interruption of the feeding to permit the eruption of air swallowed while nursing will prevent the collecting of air in the stomach, which results in discomfort, crying, spitting, or even vomiting.

The symptoms of pylorospasm and of hyper-

trophic pyloric stenosis usually begin in the second week of life and these conditions require careful study. Whenever projectile vomiting is encountered in a constipated baby, together with failure to gain weight or actual loss of weight, gastric peristalsis and pyloric tumor must be sought. For pylorospasm atropin is specific, while for stenosis a Fredet-Rammstedt operation should be performed as soon as the diagnosis is made. Although operative intervention is my choice in the handling of these cases, I am fully cognizant that medical treatment has its ardent advocates.

In simple types of regurgitation and vomiting I first try to secure relief by giving a teaspoonful of lime water during the nursing. If the stools are loose and numerous this simple procedure is often specific for both the spitting and the frequent passages. In rare instances I am forced to use atropin in doses similar to those given for pylorospasm.

A more annoying disturbance is that resulting from the baby's sensitization to some protein in the mother's milk. Eggs in the mother's diet have been found to be the most frequent offenders. Sea-food, too, is often responsible for allergic reactions in the baby. However, any type of food, from soup to nuts, may be the cause and it is often necessary to do skin tests on the baby. These allergic reactions manifest themselves by true colic, vomiting, diarrhea and eczema. Weaning in such instances is not only unnecessary but unjustifiable.

Nearly every baby, whether breast or bottle fed, has "off" days just as we grown-ups have. Fretting, wakefulness, and crying are the result. Some unusual commotion in the house, too many visitors or too much noise may be the cause. The next day brings relief.

Constipation in the nursing baby is often troublesome. It may be due to insufficient milk or, in a rapidly gaining baby, to the more complete utilization of an abundant milk supply. A high fat or a low lactose content of the milk may bring on constipation. Local causes such as anal fissure or a tight sphincter ani muscle must be sought and, if found, relieved. There is no evidence that constipation is hereditary. The daily use of laxatives, purgatives, or suppositories is to be strongly condemned. The practice only increases the constipation, is irritating, harmful and habit forming. Plain warm enemata given daily, if necessary, can do no



harm and will always obtain the desired result. If the infant is old enough, strained vegetables may be given. Tomato, prune, and pineapple juice are more laxative than orange juice and should be offered instead of, or in addition to, the latter. Mineral oil is often useful.

Many normal nursing babies have a bowel action only every other day without harmful effects; others have from 4 to 6 stools every twenty-four hours and do equally well.

It has been my practice for many years to give one supplementary bottle when the infant is 6 weeks of age. This one bottle, taking the place of one nursing, gives the mother more time for relaxation, recreation and freedom from the baby which, in turn, increases and betters her milk supply. She is allowed to elect the feeding at which this bottle is to be given. Vitamin D is given throughout the year, except during the summer months.

When the supply of breast milk begins to diminish early, as it so often does, it is necessary to give complementary bottles. At first this is usually required only after the afternoon nursings, but soon it is needed after the morning feedings as well. At this time efforts should be made to increase the milk output. An abundant diet containing a large quantity of fluids such as malted milk and beer will help. The greatest good, however, will result from increased stimulation of the breasts by manual expression after the baby has finished nursing. This ensures thorough emptying of the breasts and increases the demand which is often rewarded by an increased supply.

I am inclined to agree with Sedgwick that the only justifiable reason for early weaning is active tuberculosis in the mother. Whatever my inclination in this regard may be, I am well aware that there are other imperative reasons from the standpoint of the mother. I do not, however, hold with those who would wean a baby because of an attack of acute infectious disease in the mother. I have seen a mother nurse her baby successfully through an attack of scarlet fever without infecting the baby.

Recent studies based on a large series of cases, seem to show that 6 months is the best age at which to wean an infant. Bottle fed babies after that age do as well or better than the breast fed and are no more prone to illness. During the first six months, however, the breast fed babies are far ahead of their bottle brothers.

#### IMMUNIZATION PROCEDURES

"Oh well, they have to have them sometime; might as well have them now and get it over with."

This statement, so often made with reference to the so-called childhood diseases dates back to the days when there were no active immunizing agents; when quarantine and avoidance of exposure were the only preventive safeguards. I have been told by mothers that Junior and Sister must be vaccinated so that they may go to school. That is not an accurate interpretation of the value of vaccination but at least it is a serviceable one and gets results. We do not vaccinate our children so that they may attend school, but so that they will not get smallpox.

A child of six months may be vaccinated, although it is preferable to wait until he reaches the runabout age of two or three years.

Another disease which modern medical science has conquered is diphtheria. It was in 1913 that von Behring compounded his toxin-antitoxin mixture. Ramon later developed a simpler substance of formalized toxin, to which he gave the name anatoxin, later called toxoid. From Austria came the Schick test, which indicates susceptibility to diphtheria.

No program of diphtheria prevention is ever complete without the application of the Schick test for even with the best procedures there are from 2 to 3 per cent of children who do not become immune from one course of injections. Unless the Schick test is done, how are we to know which child is safe and which is not? The best age at which to inoculate is 9 months; three months later the Schick test should be made.

Many states require that children have a preventive diphtheria inoculation before they enter public schools. When such a campaign becomes universal and the program is conscientiously carried out there will be no more diphtheria.

The question most frequently asked in connection with diphtheria immunization is how long the immunity will last. The best answer is that once the child shows a negative Schick reaction following toxoid administration, he should be immune for a great many years, certainly until he is out of grade school when diphtheria is most prevalent and dangerous. It is a good procedure to repeat the Schick test about every five years.

Now we come to the ground upon which angels fear to tread—whooping cough prevention. We still hear both sides of the argument from physicians and from others even though experience with preventive vaccines dates back at least twenty-five years. That fact alone should make us pause and think. If the prevention of whooping cough were established on the same basis as that for diphtheria, there would be no argument. Just what is available? We have the Sauer vaccine which seems to be the best preventive at this time. If enough time elapses after vaccination, say four months, before the child is exposed to the disease, he stands a good chance of escaping infection or of having the disease in only a mild form.

In any event, preventive inoculation is the best thing we can prescribe for our children; even though in many instances results prove disappointing, this procedure can do no harm. It is, however, unwise to tell parents that injections against whooping cough are sure preventives for such a statement will sooner or later prove a boomerang to the physician and deservedly so. Four months is the best age at which to immunize a child.

As a preventive against measles, immune globulin and convalescent serum confer a temporary, passive immunity, lasting probably not longer than six weeks to two months. Inoculation with these serums is of great value in orphan asylums and other institutions for child-care in which an epidemic of measles is a serious affair. It may be carried out in private practice to protect contacts. Neither of these agents is to be considered among those which give permanent immunization and should, therefore, not be used routinely in pediatric practice.

The work on prevention of scarlet fever is still in progress and there is much debate as to its value. The Doctors Dick reported the results of their experiments in 1924, devised the Dick test for immunity, and have championed the injection of scarlet fever toxin for prophylaxis. Physicians have been reluctant to accept their findings until further research is completed. I, personally, do not recommend the routine use of this test.

In conclusion I wish to state that I endeavor to have nursing infants brought to me once a month when they are weighed, examined, vac-

inated, administered toxoid or given additions to the dietary. If the mother is conscientious, results are excellent.

It is my firm conviction that nowhere is the application of common sense more productive of good results than in the management and feeding of the small child.

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*Box 3356*

#### DISCUSSION

*Dr. Luther W. Holloway, Jacksonville:*

Dr. von Meysenbug's earnest appeal for breast feeding of infants is very much appreciated. Theoretically all female mammals are endowed with the ability to nurse their young. This was a fact until about the last two decades. The human female has lost that ability to a very large extent. In a few communities in the middle west human mothers nurse their young. In our section of the country there is a distinct inability of mothers to nurse their infants successfully. A great many mothers have no desire to nurse them and with the competition in pediatrics today somebody is always ready to feed them. So common sense dictates the giving of a formula when mothers feel that way.

Many authorities believe that the modern child is of larger stature than the child of twenty years ago who was entirely breast fed. I think this is true. They get more food and we know what they are getting now. I appreciate the quotation from Oliver Wendell Holmes. His statement was made in 1867 when there was no refrigeration, no pasteurization, and none of the safe methods of artificial feeding that we have today.

Dr. von Meysenbug mentions vomiting in the newborn infant. It has often been questioned whether pyloric stenosis exists at birth. In the last four or five years I have seen two instances in female infants who vomited with the initial feeding. In one of these, on the third day at operation, was found a well developed pyloric stenosis. Just recently I observed another one, who on the fifth day presented a beautiful full-blown stenosis. In the pediatric literature cases of pyloric stenosis are recorded as occurring more frequently in male infants than in female, the ratio being two to one. In a series of 27 cases of pyloric stenosis the condition occurred only twice in female infants and in these the symptoms were present from the initial feeding.

Relative to the Schick test, I think it should be done every year between three and eight years of age. This age group has the highest incidence of infection from diphtheria.

*Dr. Councill C. Rudolph, St. Petersburg:*

I have enjoyed Dr. von Meysenbug's paper very much because it is a subject very close to my heart. To my mind the art of breast feeding, and I say "art" advisedly, is one which is becoming very rapidly extinct. The blame for this deplorable fact, I think, rests on two



groups. In the first are the laymen who are more or less completely indifferent to the value of breast feeding. Just recently one mother insisted that I remove her baby from the breast because her husband thought nursing the baby would change her figure. In the second group are the physicians themselves. I think their attitude is due, in a large part, to the remarkable advances that have been made in the last twenty years in artificial feeding, and especially made in milk sanitation. Today the mortality for infants who have been artificially fed is practically the same as for those who have been breast fed.

I am glad to know that Dr. von Meysenbug is as old fashioned as I am. However, I think we are outnumbered.

With regard to the question of night nursing: I do not require that the baby be established on any schedule after the 6 p. m. feeding. I feel that by the time the child is 4 to 6 weeks old, he has discontinued one night feeding and by the time he is 3 months old, he is sleeping through the night.

There is one indication for removal from the breast that I can add, sore nipples. If anybody has an answer to that question I would like to hear it. There is not one infant out of twenty, I should say, who will be able to remain on the breast when the mother develops sore nipples.

Whooping cough vaccine, in my personal opinion, has a distinct value. In my private practice I cannot remember more than two children who developed whooping cough after having had the Sauer vaccination.

In regard to measles, immune globulin has been a more or less complete failure in my experience. I have given it according to directions and I fail to find that it prevents measles, nor does it seem to alter the severity of the disease.

#### *Dr. von Meysenbug, (concluding):*

Some of my friends who are obstetricians have told me that with regard to involution of the uterus it is a good thing for the mother to nurse her baby; that she has less postpartum trouble if she does so.

The question of sore nipples that Dr. Rudolph brought up is, of course, a very important one. If we could prevail upon obstetricians to prepare the nipple during the entire pregnancy, I do not believe that there would be many sore nipples. This is seldom done and a baby will not nurse a sore nipple. There is nothing to do except to take the baby off the breast.

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### DATE SET FOR MEDICAL EDUCATION CONGRESS

The Thirty-Seventh Annual Congress on Medical Education and Licensure, conducted under the auspices of the Council on Medical Education and Hospitals of the American Medical Association, will be held at the Palmer House, Chicago, Feb. 17 and 18, *The Journal* of the Association announces in its Nov. 9 issue. During the Congress special consideration will be given to the relationship of the medical profession to national defense.

### CLIMATE AND ALTITUDE IN THE TREATMENT OF HYPERTENSION AND MYOCARDIAL FAILURE

D. Paul Bird, M. D.

Lakeland

Climate undoubtedly plays an important part in the treatment of diseases of the circulatory system, especially in that of essential hypertension and myocardial failure. These diseases are often inseparable and may be associated with renal lesions, a fact which accounts for the often used term cardiovascular renal disease. While it is true that each may exist alone, so often does essential hypertension develop into myocardial failure and nephritis that it is well to bear in mind the relation of one to the other in any study of the care or treatment of either. If essential hypertension sometimes develops into myocardial failure—and this we know is true—a climate beneficial to patients with advanced circulatory failure would benefit also those in whom myocardial failure or its prodrome, essential hypertension, had developed. A suitable climate, therefore, may be considered a natural aid in overcoming a tendency toward vascular disease. While climate is admittedly an important factor in the control of hypertension and cardiovascular disease, altitude may likewise be seen to have its influence.

Crile<sup>1</sup> stated that hypertension is of comparatively rare occurrence in a tropical as compared with a temperate climate. This would lead to the supposition that in a subtropical climate the frequency would be between the two extremes and that, while hypertension would not be entirely eliminated in such an environment, it would be less severe than in a temperate climate.

Dill<sup>2</sup> said that many summer days in so-called temperate regions are more debilitating than those in Panama. "They may not be worse as shown by the temperature records", he wrote, "but physiologically may be more serious because little opportunity for adaptation is given." Shattuck<sup>3</sup> showed that patients with heart disease are abnormally sensitive to heat and that the most common diseases associated with deaths from heat are those of the circulatory system. The reduction in blood volume due to salt loss may account for the high proportion

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<sup>1</sup>Read before the Sixty-seventh Annual Meeting of the Florida Medical Association, held at Tampa, April 29, 30, and May 1, 1940.



of cases of circulatory failure among instances of casualties caused by heat.

Bitzer<sup>4</sup> expressed the belief that the cold pressure test developed by Hines and Brown of the Mayo Clinic well demonstrates the extraordinary change of blood pressure that may occur from sudden changes of temperature. He stated that it is a common observation that patients suffering from hypertension have lower blood pressure in summer than in winter. Such being the case, the climate best suited to the comfort and welfare of these patients would be one in which the temperature approximates that of the summer months rather than of the winter months.

The changes of temperature in the temperate climates from the severe cold of winter to the chill of spring, and then to the intense heat of midsummer require a neurocirculatory system adaptable to such extremes. A patient with circulatory disease is likely to be unprepared to meet the demands which this change makes on his circulation and to become the victim of the heat. In the normal person, on the other hand, this change may cause discomfort but it does not embarrass his circulatory system.

Crile has shown that a cool environment stimulates the adrenal and thyroid glands to greater activity. This activity of the adrenal glands acts on the sympathetic nervous system through the celiac ganglion; thus it can readily be seen why to patients with hypertension, a cold climate is more harmful than a warm one.

The mean temperature in central Florida is around 73 F. as compared with a mean of from 50 to 60 F. in the states bordering on Canada. Midsummer temperatures, while lasting longer in Florida than in those states, do not rise steeply to heights far above normal.

Together with climate, altitude is worthy of attention. On patients with cardiac disease, Graybiel and his co-workers<sup>5</sup> made a study of experimentally produced anoxemia; they found that at an altitude of 14,000 feet no subjective symptoms were present, but 3 out of 13 patients fainted and 4 others showed signs of distress. Further studies in aviation medicine confirm these observations. In this connection Dill<sup>6</sup> wrote:

We have no hesitation in saying that in many cardiac patients the shortness of breath is a symptom of a weak heart. There seems to be a parallelism between patients with some types of heart disease at sea level and poorly acclimated men at high altitudes. Shortness of breath, palpitation of the heart on exertion, the development of

polycythemia and impaired external respiration are common features. Finally, heart damage is not uncommon experience in men not fully acclimated to high altitudes, and heart defects which one may be unaware of at sea level may come to the fore. Every physiological function is apt to be modified at high altitudes because the deleterious effects are bound up with the inherent lack of oxygen.

McFarland<sup>6, 7</sup> of the Harvard Fatigue Laboratory has done extensive research work in blood pressure under all variations of temperature and altitude. He wrote:

I am in agreement with you about the effects of tropical temperatures on cardiac patients and I believe that there is a considerable amount of evidence to indicate that a very high environmental temperature is more difficult to adjust to than a moderate altitude. High altitudes, however, that are above 8,000 to 10,000 feet have a severe effect on cardiac patients, especially if there is any decompensation. I feel fairly confident that older people especially benefit by climates such as one might find in Florida or California, because of the absence of extreme changes in temperature. I am quite confident, for example, that going to California or Florida will add ten years to the life of my mother who is well over 80. I should think that you would have an unusual opportunity to make such observations in Florida.

Anoxemia will not become noticeable in a normal person until he passes an altitude of 10,000 feet and he may be able to ascend even higher without experiencing any impairment of bodily functions but this is not true of those who suffer from cardiac disease. They quickly develop anoxemia and above 10,000 feet will suffer severely. Anoxemia, while not always dangerous, may occur at sea level and require the administration of oxygen to bring ease. It is to be assumed, however, that the discomfort of a patient who suffers at sea level will increase with the altitude as the oxygen supply becomes less. For that reason, a low altitude, preferably as near sea level as possible, is best suited for the patient with cardiac disease. Bradley<sup>8</sup> concurred in this when he said:

I can definitely state that I have at various times had patients who voluntarily stated they enjoyed much better health here [in Florida] than in the northern or elevated climates.

The inhalation apparatus designed by Boothby, Lovelace and Bulbulian, described by Lovelace<sup>9</sup>, overcomes the dangers which high altitudes might have held for patients suffering from hypertensive and cardiac diseases. Boland<sup>10</sup> used this apparatus in the treatment of coronary thrombosis, administering oxygen in high concentrations. I have used it for relief of anoxemia at altitudes up to 16,000 feet. My experience, however, has been that patients with hypertensive and cardiac diseases live more comfortably at sea level than at a higher altitude, even though the difference is only a

few thousand feet. They find it easier to breathe at sea level where the oxygen content of the air is at a maximum and the alveolar pressure is best suited to overcome any tendency toward anoxemia.

At sea level the barometric pressure is 760 mm. This falls to 670 mm. at an altitude of 3,000 feet. The oxygen pressure falls from 159 to 140 and the oxygen volume decreases from 20.96 per cent at sea level to 18.4 per cent at this altitude. The oxygen deficiency brought about by this lowered atmospheric pressure is enough to produce anoxemia in patients with severe decompensation of the heart. Higher altitudes will cause more decompensation which can be overcome only by administration of oxygen.

#### REPORT OF CASES

Case 1. M. P., a 70 year old man, when seen, had suffered from hypertension for a period of at least five years. He had not had any cardiac decompensation; medical treatment had not lowered his blood pressure to any appreciable extent. For many years he had spent the summer months in a mountainous state of moderately high altitude where he built a summer home. Here he worked in his garden until fall when he came to Florida for the winter. Three years previously, during the summer, he began to notice increased discomfort while working. Breathing required more effort, work in the garden caused a shortness of breath and climbing was too difficult for pleasure. This condition disappeared when he returned to Florida in the fall, only to recur again the following summer. After suffering for two summers with this type of cardiac anoxemia he sold his summer home and has spent the last two summers in Florida. He is now able to perform his duties about the home and garden without any respiratory distress. He does not take any medicine but adheres to a sensible dietary.

Case 2. Mr. U., aged 50, who lived in a moderately high altitude and a temperate climate, suffered from hypertension, dilatation of the left ventricle and decompensation, which confined him to bed for two years. During his convalescence he was advised to move permanently to Florida. Three years in a subtropical climate at a low altitude played an important part in relieving his cardiac condition. His left ventricle decreased in size and his blood pressure became nearly normal. Occasional short visits to his former home repeatedly brought on an elevation of blood pressure and cardiac asthma from which he does not normally suffer.

Case 3. J. B. G., a 60 year old man, had suffered from myocardial failure since 1931. He had an enlarged heart, decompensation with the usual signs of edema of the feet and ankles and noticeable shortness of breath on exertion. At the onset of myocardial insufficiency the patient was treated by seven months of rest in bed. His recovery was progressive enough to allow him to resume some of his former activities about the house. During the summer of 1939 he went to the mountains and was able to move about in his hotel at an altitude of around 2,000 feet. Going to another mountain locality of some 3,000 feet in altitude, he was forced to remain in bed and for that reason returned to his own home where the altitude was about 200 feet. Here he resumed his old habits and activities without dyspnea on exertion.

It is my belief, based on study, that normal persons easily adapt themselves to the rigors of almost any climate whether it be arctic or tropi-

cal and to any altitude not exceeding 10,000 feet, but that persons with cardiovascular disease are handicapped by being less adaptable. My observations indicate that if these patients suffer from shortness of breath and dyspnea on exertion at low altitudes, these difficulties will be increased with the altitude until the point is reached where the administration of oxygen is necessary.

I have used the term "cardiovascular" to include both hypertension and advanced myocardial failure, realizing that there are many varieties of each, and that advanced hypertension may eventually lead to myocardial failure though the latter may exist without the former. I do not contend that climate or altitude is the cause of hypertension or of any type of cardiovascular disease. My belief is that a subtropical climate of average humidity is more beneficial in the treatment of essential hypertension and myocardial failure than is a temperate climate; that a low altitude is more beneficial than a high one which requires more work of the heart muscle to prevent anoxemia. The improvement that patients show in a low, subtropical environment cannot be laid to lack of work, freedom from care and general rest measures. While such conditions often prevail with a change of climate, the same improvement is not noted if the patient moves to a colder climate and higher altitude. The fact that the death rate is higher in January and February than in June and July will confirm this conclusion.

#### SUMMARY

Essential hypertension and myocardial disease are both influenced by changes in climate and altitude. Climate plays a more important part than does altitude. A subtropical climate of moderate humidity and a low altitude afford the best natural environment for the treatment of essential hypertension and myocardial disease.

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Box 1255

## DISCUSSION

*Dr. James A. Bradley, St. Petersburg:*

All those physicians doing internal medicine in Florida have a constant procession of patients through their office suffering from all types of heart conditions who voluntarily make statements to the effect that they are healthier in Florida than in the colder climates of their homes.

I recently observed a rather interesting case of this kind. A retired banker who last summer had an attack of coronary thrombosis, was sent to Florida because he suffered from cardiac pains when he walked against the wind or out in the cold air. While in St. Petersburg he did not suffer in this manner and about April 1 he wrote his home physician saying that he was planning to return home; whereupon his physician immediately sent him an airmail letter advising him to stay in Florida because the climate was still rather cold in the North.

I think we might consider this particular patient's case physiologically. Experiments have been done to show that when cold is applied to the skin over the kidney, the kidney vessels will contract and when heat is applied they will dilate. I wonder if a similar condition did not exist in this patient when he was walking against cold air. First, we have the exercise of walking against the strong wind, and second we have the cold air. I wonder if that would not cause a contraction of the coronary arteries and reflexes affected and lead to the cardiac pain.

Then, because of the climate we have here, we wear fewer clothes. That is a rather important thing to a certain extent in cardiovascular disease. It means that the body has an opportunity to throw off more toxins through the skin by means of perspiration. We all know, although at times we have a tendency to forget, that when one wears a number of clothes they hold a layer of air against the skin. Now, if these clothes are impervious to air, that layer of air is held against the skin and rapidly becomes saturated with moisture. When this occurs excretion of moisture through the skin is prevented and thereby the patient has a greater weight thrown on the kidney system with a possible increase in the amount of toxins in the blood to irritate the coronary vessels.

*Dr. E. C. Chamberlain, Ft. Lauderdale:*

This paper has discussed the beneficial effect of the even temperature and low altitude found in Florida. Of this effect there is no doubt.

There is another factor that has not been considered, and that is humidity. The elderly patient with hypertension, but also with early decompensation and a lowered vital capacity, is frequently symptomatically much worse in the presence of an increased relative humidity.

This added variable needs investigation and must be definitely considered in the management of cardiovascular disease in this region.

*Dr. Bird (concluding):*

To go any further into the subject than I already have would require a considerable length of time.

Humidity is an important factor. It has been described by McFarland and Dill of the Harvard Fatigue Laboratory. They have studied it in the deserts of Arizona and in Death Valley where there is practically no humidity, and where there is extreme heat in summer. They have studied it in Panama where the all year around temperature is a little higher than ours, somewhere around 80 F. They have felt that a humid climate is not quite as comfortable to the patient as a dry climate in which he perspires profusely and the perspiration cools him. The patient feels a little warmer where the air is humid.

I believe that Dr. Kenneth Phillips will bear me out in this statement: that during treatment by fever therapy, patients get along much better if the surrounding air is humid. Even the average person is far better off if the atmospheric air is humid when the temperature is around 90 to 100 F. So you see we had best leave it here. I am sure that the speakers on coronary disease will stress the advantage of oxygen in the treatment of these patients. We know now that in the treatment of coronary disease the use of oxygen up to 100 per cent will relieve coronary pain.

## UTERUS BICORNIS UNICOLLIS

JOHN W. SNYDER, M. D.

MIAMI

Embryologically the uterus and vagina are formed by the fusion of the two Müllerian ducts, the union taking place from below upward. Lack of such fusion accounts for the several types of malformation. These range in degree from the variety in which there are two horns, a double cervix, a double vagina (even, rarely, a double vulva) to that in which the double character of the uterus is indicated merely by a depression or notch at the fundus. All possible variations in the degree of fusion and malformation are met in clinical reports.

Usually the two halves are symmetrical and lie in the same pelvic plane. At other times rotation seems to have taken place and one cornu may be anterior to the other. Again, one-half may be poorly developed and much smaller than the other or even rudimentary in formation. Finally, one side may fail completely to

Read before the Dade County Medical Society, Miami, April 3, 1940.



develop, resulting in a uterus essentially normal in appearance but with only one broad ligament, tube, and ovary attached to its side. In other instances the uterine cavity may fail to attain an opening into the vagina from one side, a condition which results in retention of menstrual blood (hematometra) or, with a septate vagina, one side may be occluded with a vaginal cystic mass, hematocolpos.

It is interesting that even with no patent opening to the outside, pregnancy has occurred in the occluded side, evidently being due to an intra-abdominal migration of ovum or sperm from the more normal side. Nokes<sup>28</sup> reported such a pregnancy in an atretic uterine horn which had no communication with the cervix or vagina and in which he resected the involved horn and tied the tube on the other side.

Various factors are enumerated as possible causes for the failure of normal fusion and development. The simplest view is that it represents an arrest of evolution from, or the reversion to, a more primitive type of genital structure, such as is seen in some of the lower animals. Growth abnormalities are difficult to explain, and it would seem that this differs but little from other deformities. No study of a familial hereditary tendency to such abnormality has been encountered although it would seem to stand in about the same relation as cleft palate or harelip.

Various developmental abnormalities of the urinary tract may accompany bifid uterus. Fused kidneys, as well as single kidneys due to agenesis on one side are noted with considerable frequency. Curiously enough, as stated by Findley, it is the right kidney and ureter which are found to be absent in all cases and never the left.

The presence of a vaginal septum strongly suggests other abnormalities. A double vagina and cervix are indicative of a similar division of the fundus. With a single vagina the cervix may be broad and present a double orifice and double cervical canal, or a single orifice and a single cervical canal which divides into two branches at about the level of the internal os. In other types a single cervical canal terminates in a fundus which itself is divided partially or totally by a septum.

The similarity of bicornate uterus to various pathologic states in the pelvis renders diagnosis difficult unless some vaginal or cervical

abnormality is noted. Diagnosis by means of lipiodol injection into the uterine cavities has been used without harm even in the presence of pregnancy. Steinharter and Brown<sup>28</sup> reported the injection of a bicornate uterus which showed a two months' pregnancy and which continued on to term with a normal delivery.

The advent of pregnancy in a bicornate uterus may precipitate difficulties. Miller<sup>28</sup> stated that in 40 per cent of these cases there are complicated deliveries and that abortion and premature labor occur frequently. Oddities occur, such as the case reported by Moench<sup>24</sup>, in which the birth of a 7 month infant was followed three days later by the passage of a 3 month fetus. DeLee<sup>9</sup> reported one case of breech delivery in which the child straddled a vaginal septum. Confusion has resulted during delivery when the obstetrician examined first one cervix and then the other without recognizing the existence of two vaginæ and two cervices.

Twin pregnancies have occurred in a single horn with cesarean delivery. Barrett<sup>9</sup> reported twin pregnancies with one fetus in each side as shown by roentgenograms. Gill<sup>18</sup> encountered



FIG. 1. Lipiodol injection showing a single cervix and two uterine fundi.

pregnancy in a bicornate uterus with the head in one horn and the breech in the other.

While pregnancy and labor may be normal and the condition only recognized after several successful deliveries, the general feeling seems to be to regard pregnancy in a bifid uterus with much concern. If recognized, cesarean section is usually employed because of fear of uterine rupture during labor. Excessive bleeding and other complications certainly are more frequent with a bifid uterus.

Pregnancy in a rudimentary horn resembles ectopic gestation very closely. Rupture and hemorrhage present the classic picture of ectopic pregnancy. Massive abdominal hemorrhage with profound shock appears early, presenting a truly alarming picture and a surgical emergency more critical than the more common ruptured ectopic pregnancy.

As stated previously, abortion and premature labor are frequent. Both may be regarded as fortunate life-saving developments. In many cases abortion from a rudimentary horn may be followed by normal pregnancies in the better developed opposite horn. Findley cited the case



FIG. 2. Retrograde pyelogram showing absence of right kidney and a bifid pelvis on the left.



FIG. 3. Specimen, Uterus bicornis unicollis after subtotal hysterectomy.

of Oker-Blom in which there were nine pregnancies, five on the right and four on the left. The left uterus was rudimentary and all four pregnancies on that side ended in abortion while all five pregnancies on the right went to full term.

Various pelvic disorders are common to the normal as well as the bifid uterus. Tumors, infections and other pathologic states occur in each. However, there seems to be evidence that the bifid uterus presents greater pathologic change and more symptoms than does the normal one.

Dysmenorrhea, often severe, is a common complaint. Menorrhagia, with bleeding both excessive and prolonged, frequently brings the patient to surgery. With congenital atresia at various levels, retention of menstrual blood produces hematometra or hematocopos. If such blood backs up and out through the tubes, a pelvic hematocele forms. Allen<sup>3</sup> found blood and endometrial deposit had formed a thick covering over the cul-de-sac in a case presenting atresia in a right rudimentary horn.

Infection of a hematometra may necessitate a panhysterectomy, although in noninfected cases simple drainage into the natural vaginal or cervical passage may very satisfactorily clear the uterus of all evidence of pathology.

Except in an emergency most surgical measures tend to be conservative in an attempt to restore the genital tract to a more normal state. Vaginal septa are removed and free drainage of all uterine secretion obtained. From the abdominal side an attempt may be made at plastic reconstruction of the uterus or removal of a



rudimentary horn in the hope of a successful future pregnancy. In view of the dangers and risks involved in such pregnancy it is a doubtful benefit unless most earnestly desired. Sterilization would seem to be the preferable measure in most cases.

The case here presented is quite classic in that both genital and urinary abnormalities were present.

#### REPORT OF CASE

Mrs. C. M. was admitted to the Jackson Memorial Hospital June 23, 1939, with the complaint of painful prolonged menstruation. The onset was at the age of 14 with a tendency to be irregular and always profuse. For the preceding few months she had been confined to bed six to seven days of each month because of excessive flow and abdominal pain of a cramping type. She was married and had had one child in 1920 by a low forceps delivery. So far as she knew her pregnancy was normal. She had also had one miscarriage the previous year.

The past history revealed an appendectomy in 1910 and a bilateral salpingectomy with suspension of the uterus in 1930. At that time she was told that she had a double uterus. She found that it was impossible to retain employment because of the loss of time necessitated by menstruation and for this reason primarily she asked for relief.

Examination did not yield observations of importance except in the pelvis. There bilateral masses were felt suggesting the diagnosis of bifid uterus as given by the patient. The cervix was single, slightly displaced to the right of the vagina and contained but a single cervical canal. Lipiodol injected into the cervical canal for roentgenologic study confirmed the diagnosis of a bicornate uterus.

In view of the previous bilateral salpingectomy it was felt that hysterectomy was the only satisfactory solution of the problem. Plastic reconstruction by reason of the sterility already existing could be eliminated from any consideration.

At operation the uterus was found to consist of bilateral masses with the division extending to the cervical area where they united into a single body. Both tubes were absent and the right and left fundi were intimately adherent to the abdominal wall on each side of the median line. After the fundi were freed from the abdominal wall, the broad ligaments were found to be of perfect formation. The bladder covered the front of each fundus and dipped between to become adherent posteriorly. Except for the necessity of freeing the bladder from the cleft between the two fundi, the hysterectomy was classic and presented no difficulty. The ovaries were intimately adherent to the fundi and the abdominal wall on each side. The right ovary was preserved and the left sacrificed.

Convalescence was normal. The patient was readmitted to the hospital two months later because of pain at the usual time of menstruation. Examination disclosed some painful enlargement of the remaining right ovary. This was evidently a cystic change following impaired circulation. It is hoped that this may adjust itself without further intervention.

At this time an opportunity was afforded of examining the urinary tract. The Urologic Department reported absence of the right kidney and a bifid kidney pelvis on the left. This finding, although unexpected, has been frequently reported in similar cases as previously noted.

In conclusion, the thought conveyed by a review of the literature on this subject is that bicornate uterus becomes a very definite hazard with the development of pregnancy, so much so that induced abortion or sterilization

by some means seems advisable. While normal pregnancy and confinement do occur, the usual procedure when the condition is recognized, is a cesarean section to prevent rupture of the uterus.

Lastly, a bicornate uterus in itself presents the problem of painful and excessive menstruation which may be sufficient to necessitate some form of surgical intervention.

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402 *Huntington Bldg.*

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## COOPERATIVE ROENTGENOTHERAPY

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If I were presenting a paper on irradiation therapy of benign lesions before a group of lawyers or business men, or perhaps a local P. T. A., I would at the start call to their attention the error in the rather common belief that roentgenotherapy means cancer therapy. I am assuming that such an idea has no place in your thoughts, but I do want to say a few words concerning two misconceptions which I feel do prevail in the minds of many physicians, ideas which have been handed down from the time when roentgenotherapy was in its infancy and which are, for that reason, deeply rooted.

The first of these is the conception that the radiologist is laboring under the delusion that irradiation therapy is a panacea, a cure for all evils. The background for this thought is not hard to explain and has its counterpart, I think, in the fairly recent advent of sulfanilamide. You will remember that when this drug was first brought from Germany there was a wave of hysterical fanfare, both among members of the profession and in the public press, concerning its magical healing powers. It was used on the slightest provocation and in far too many instances on such meager indications that when the patient did not respond in three days the attending physician then took a history and did a physical examination. The wildly enthusiastic internists and surgeons informed us that here at last was *the* drug, and it was not until enough time had elapsed for careful and thorough appraisal that the

true value of the chemical was found and its usage placed on a sound and rational footing. It has been learned through bitter experience that the advantage to be gained in any given case must be carefully weighed against the inherent and real dangers involved; that the drug must be used with utmost care and skill for specific lesions. In its early years roentgenotherapy went through somewhat the same stages but because of the fact that a comparatively few men had to solve its problems the time taken to rationalize and evaluate its true worth has been much longer. I do feel, however, that this has now been accomplished. An attitude of skepticism or doubt in regard to the value of modern irradiation therapy, based on long experience or careful scientific investigation, can represent only a complete ignorance of the more recent advances in radiology or an antagonism founded on other than scientific reasons.

The second of these misconceptions is the belief that the radiologist, in a perfectly legitimate enthusiasm for his own specialty, is attempting to invade those provinces of medicine considered by the general practitioner or other specialists as their very own. A state of affairs in another field of medicine can again be found which is quite similar, namely, the battles and debates which raged not so many years ago between the internists and the surgeons when the latter began operating on all peptic ulcers on the theory that they were surgical problems per se and not medical. It was not until comparatively recently that both camps have come to realize that, instead of being a problem for one field of medicine alone, peptic ulcers present problems which can be solved only by close cooperation between the internist and the surgeon. The peptic ulcer enigma, if the truth be told, is yet far from solution and demands not only the internist-surgeon coordination but the combined cooperation of all branches of medicine. Much the same reactions have been met by the radiologists. In too many instances voices have been raised in heated protest and not too kind accusations have been made whenever irradiation therapy was suggested or used in conditions considered sacred by one or another specialty. It is the primary purpose of this paper to point out that the radiologist is offering roentgenotherapy as a cooperative therapeutic measure rather than as a competitive one, that he has

something to offer many a patient which would aid and speed recovery if the physician in charge would think of irradiation therapy as the radiologist intends it, and not be governed by petty antagonism.

As with surgery or internal medicine much could be written if one's purpose were to compile a complete therapeutic index or guide for irradiation therapy in benign lesions. But rather than go too far afield by including, for example, the help a radiologist can give in problems concerning the thyroid or in menstrual disorders, or in pediatric problems, I want at this time to confine myself to four specific infections which, being fairly common, should be called to your attention and will serve admirably to make my point.

Following a preliminary report in 1936 by J. F. Kelly<sup>1</sup> the roentgen treatment of gas gangrene has become an established mode of therapy so far as the radiologists are concerned, although little has appeared in the more general medical literature. Until the work of Kelly and others put such an attack on a firm foundation, the mortality and morbidity of this infection were frightfully high, but now that the surgeon has included this therapeutic agent in his thought processes the fear of disaster in these cases has for the most part been removed. It has been my experience, as well as that of others who have reported in the radiologic literature, that when the radiologist is called in to assist the surgeon on the first indication of gas bacillus infection or, better still, to give roentgenotherapy as a prophylactic measure to all badly macerated and infected wounds, the results have been most satisfactory. This illustrates perfectly the cooperative rather than the competitive role of the radiologists.

There is probably no lesion of interest to the internist for which irradiation therapy offers more, and at times even spectacular, results than in unresolved pneumonia. I am purposely limiting myself to unresolved pneumonia for the simple reason that with the advent of sulfapyridine, the use of irradiation therapy has been relegated to the more unusual cases of acute pneumonia; it is to be remembered, however, that it is of real and great value in such lesions if for any reason drug therapy is contraindicated. At the present time, then, it is legitimate to say that roentgenotherapy in un-

resolved pneumonia should be considered the treatment of choice and here again the role of the radiologist as one member of a team is well illustrated. No one should feel that he is trying to enter the field of internal medicine at the expense of the internist whom he is helping.

Irradiation therapy for chronic sinus disease, particularly in children, is a mode of treatment which has found much space in recent medical literature. I am calling it to your attention, not so much to stress its importance as to make the point that here is one of the more recent fields of roentgenotherapy which has given rise to the feeling that the radiologist is invading another specialty. I am strongly of the feeling that such is not the case. In the first place, the nose and throat specialist has little to offer by way of cure for these children. Secondly, I feel just as strongly that these cases present problems which call at once for the services of the nose and throat man, the pediatrician, and the allergist as well as of the radiologist. It is perfectly true that roentgenotherapy offers much by way of cure, but I believe that he must have the coordinated services of these other specialties as well. Here again it is a matter of team rather than solo play.

The fourth and last infection of which I want to speak is the herpetic ulceration of the cornea. Irradiation therapy in this lesion is one of the most recent developments in roentgenotherapy and, because it has given me such satisfactory results, I am beginning to feel that for this lesion it comes as near to being a specific therapeutic agent as is possible. Here again I feel that the radiologist has something to offer which, so far as we know, promises far more by way of cure than any mode of treatment used in the past, and I do not think that he should be or can be accused of invading the realm of the ophthalmologist. Those physicians whose patients I have had the privilege of treating have been most enthusiastic over the results obtained.

In closing I want to give a word of warning. This may be out of place in that it has no part in the building up of the theme of this paper, but it is of such importance that I think it worth while. Earlier in this paper I mentioned sulfanilamide and its widespread adoption. Because of this enthusiastic use of the drug

situations are beginning to arise in which irradiation therapy is requested for patients who have taken or are taking large doses of the drug. The ingestion of sulfanilamide is a contraindication for the use of roentgenotherapy! Several unpleasant accidents occurred before this fact was known and some radiologists feel so strongly about the situation that they refuse to treat any patient who has had the drug, no matter how small the amount. Each has its indications and uses; taken separately each can be of inestimable value; they cannot be used together.

#### SUMMARY

I have presented for your attention four types of infection: gas bacillus infection in dirty wounds, unresolved pneumonia, chronic sinus disease in children, and herpetic ulceration of the cornea. All respond well to irradiation therapy, a therapeutic procedure which the radiologist has at his disposal and which he offers in a cooperative and not a competitive spirit.

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306 Citizens Bank Bldg.

### ROLE OF THE UNRECOGNIZED TYPHOID CARRIER IN THE TRANSMISSION OF TYPHOID INFECTION

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With the development of the science of sanitary engineering and the application of its knowledge of storage, filtration and chlorination in the protection of public water supplies, together with more rigid supervision of watershed sanitation, the urban population of the majority of our communities is furnished a safe water supply.

For this reason, typhoid fever spread through public water supplies has practically reached the vanishing point. So long as there is no relaxation in the close supervision over public water supplies, so adequately maintained in our municipalities, we need no longer fear the ravages of water-borne epidemics which were so prevalent and devastating only a few decades ago.

The great water-borne tragedies of the past

have made an indelible impression upon the minds of the public and have overshadowed the less dramatic but more insidious and frequent modes of transmission through other channels.

Coincident with the rapid strides made in the supervision and protection of public water supplies, shellfish areas and bathing beaches, the increasing application of pasteurization and the steady improvement in conditions surrounding the production of our milk supply have rendered this product a less important vehicle for spreading typhoid infection. Intensive epidemiologic investigation of cases of typhoid fever over a period of time indicates that the unrecognized typhoid carrier is the greatest single factor in the spread of typhoid fever in communities where adequate health service is established. The unrecognized typhoid carrier is responsible for the residual typhoid in such communities, which in spite of efforts directed along other lines, has rendered these efforts unsuccessful in completely eradicating the infection from our midst. The sporadic case, the source of which is difficult and sometimes impossible to determine, accounts for the majority of the cases of our present day typhoid.

#### THE CARRIER STATE

It is often difficult to convince the layman that a person who is well, has no symptoms of illness, and is engaged in a productive occupation, harbors in his body living germs of typhoid fever which he may from time to time pass on to those with whom he comes in contact, either directly or indirectly, and cause them to become victims of so serious a malady as typhoid fever.

The majority of persons who suffer an attack of typhoid fever continue to discharge typhoid germs for a period of from three to ten weeks after the onset of the disease. This group constitutes what are known as convalescent or temporary typhoid carriers. Some persons who suffer an attack of typhoid fever continue to discharge typhoid germs permanently and are known as permanent typhoid carriers. Not infrequently a typhoid carrier is discovered in whom a history of past typhoid infection cannot be obtained. It is generally conceded, nevertheless, by those who are familiar with the factors involved in the production of the carrier state that such persons probably have had an attack of typhoid fever so mild in character that it was not recognized and thus was not diag-



nosed. Persons who remain carriers following an attack of typhoid fever harbor the germs of the disease either in the gallbladder, the biliary ducts, or in the intestinal or urinary tract. For unknown reasons carriers do not discharge the organisms every day, but may discharge them one day and then fail to discharge them for a period of several days, only to discharge them again at some later date. This intermittency of excretion of typhoid germs which often characterizes a typhoid carrier makes his discovery all the more difficult and unless he has caused several infections and unless the circumstances surrounding each are such that we can correlate the facts and build up a chain of evidence pointing toward the carrier, he usually goes undetected.

#### HOW CARRIERS SPREAD INFECTION

Obviously, if typhoid germs have to be swallowed to produce infection it is at once apparent that food and drink are the most common vehicles for conveying the infection. Therefore, to be a real menace to others the carrier must be engaged in an occupation involving the handling of food or drink intended for the consumption of others.

The ability of the typhoid carrier to convey infection through the medium of food or drink which he handles is dependent upon several factors which must act in combination before infection can take place. These factors include: (a) intermittency of excretion of the organisms, (b) the interval of time elapsing from the time the organisms are excreted and soil the carrier's hands to the time the carrier handles food, (c) the cleanliness of the carrier in his personal habits, (d) the character of food handled and the intimacy with which the carrier comes in contact with food. It is a well-known fact that specimens collected from a carrier on one day may prove positive upon examination while specimens collected on subsequent days may prove negative. In some instances specimens from carriers under hospitalization have been examined daily for many days without the organisms being found. Thus, intermittency of excretion of the organisms has an important bearing upon the factors in the chain of events which must take place before the carrier can infect others. The carrier cannot infect food which he handles during the period when he is not discharging the typhoid bacilli from his body.

Moreover, if an interval of several hours elapses between the time the carrier contaminates his hands with the infectious discharges and the time his hands subsequently come in contact with food, the chances of depositing viable organisms on the food are greatly diminished because the organisms are dependent upon moisture for their survival.

The typhoid carrier who is very careful always to wash his hands thoroughly and regularly with plenty of soap and water after going to the toilet likewise considerably diminishes his chances of infecting others. Carriers have been discovered who have acted in the capacity of food handlers in ignorance of their carrier state for many years with surprisingly few infections attributable to them. Subsequent investigation of these carriers revealed in each instance that they were persons noted for their neatness and kept everything around them very clean.

The carrier who acts in the capacity of cook comes in intimate contact with foods. Much of the food he handles is served in the raw state or is subjected to insufficient heat to kill the typhoid organisms. Such foods have been responsible for many outbreaks of typhoid fever.

The histories of a number of typhoid carriers discovered through routine epidemiologic investigation and the circumstances surrounding their discovery are given below.\*

#### REPORT OF CASES

**CARRIER W:** This woman had typhoid fever twenty-four years prior to her discovery as a carrier. Her son-in-law came to live with her in the summer of 1931 and contracted typhoid. Investigation of this case revealed that Carrier W's daughter-in-law, who had lived with her fifteen years previously, contracted typhoid and died of the infection. Also three itinerants from an adjoining state who took meals at her home three years previously contracted typhoid after returning to their homes in another state. A series of specimens submitted from Carrier W, following the investigation of the case in her son-in-law were all negative for *B. typhosus*. A year later, as a precautionary measure the local health officer submitted another series of specimens. All fecal specimens in this series were positive for *B. typhosus*.

**CARRIER X:** About two months prior to Carrier X's discovery as a carrier she was employed as a maid. The Connecticut State Department of Health received a call from the local health officer requesting assistance in locating the source of infection for a case of typhoid fever in the employer's family. At the time of the epidemiologic investigation it was learned that all members of the family had illnesses with onsets simultaneous with that of the case of typhoid fever but were of shorter duration. Carrier X was at once suspected as a typhoid carrier although she denied a history of past typhoid infection. All specimens in a series submitted were found to be positive for *B. typhosus*.

\*The carriers herein reported were discovered in the course of epidemiologic field work at the Connecticut State Department of Health.

This carrier had always been employed in a factory until the depression caused her to lose her job. She then sought employment as a maid. She had never before had an opportunity to convey her infection through the medium of food which she handled except to members of her own family for whom she cooked. Her own family consisted of her husband and one son and the son's wife. Several years previously the husband had had an indefinite illness of several weeks' duration to which he succumbed. The son had a clinical case of typhoid two years prior to the discovery that his mother was a typhoid carrier. The son soon married and took his wife to live with the mother-in-law. The daughter-in-law contracted typhoid fever six weeks later.

**CARRIER Y:** The great great grandchild of this carrier came from an adjoining state to live with her and a few months later became ill. The child was taken back to her home where she entered a hospital. A diagnosis of typhoid fever was made and reported to the health officials. The Connecticut State Department of Health was notified that the investigation of the case revealed that the child's grandmother, residing in the same city, who had visited the patient in Connecticut three weeks prior to her present illness and was intimately associated with her, was found to be a typhoid carrier as shown by the examination of specimens. Following receipt of this information an investigation was made which seemed to point to the grandmother as the source of the infection.

However, a year later this bureau was called to investigate another case of typhoid in the same neighborhood, a child who had come from the same adjoining state to live with his grandparents. Investigation of this case revealed that this family purchased milk from Carrier Y. The daily milk supply totaled three quarts, all of which was sold to the neighbor whose grandchild contracted typhoid. Now Carrier Y's granddaughter (the grandmother of the first child who contracted typhoid) who had been suspected of being the carrier in the first place had not visited in this state since the time when she presumably infected her grandchild. Carrier Y milked the cow and no one else had contact with the milk. In spite of the fact that she denied a history of past typhoid infection every specimen of feces in a series submitted was positive for *B. typhosus*.

**CARRIER Z:** This carrier was discovered as a result of an investigation of a case of typhoid in a member of the family for whom she cooked. The attending physician had suspected some local source of infection since a fellow practitioner had reported to him that he had treated another member of the same family during the previous summer for an illness of several weeks' duration which strongly resembled typhoid fever but that he had been unable to make a definite diagnosis and thus the case was not reported as such. Carrier Z had been employed in the family for a period of eight years. Although she denied a history of past typhoid infection all fecal specimens submitted in a series were positive for *B. typhosus*.

These records illustrate the futility of relying entirely on a history of past typhoid infection in searching for typhoid carriers. Four out of six carriers recently discovered by this department did not give a history of past typhoid infection. One of the these histories also illustrates how one may be misled by negative laboratory findings. It is a well known fact that typhoid organisms may disappear from the discharges of a typhoid carrier only to reappear at a subsequent examination. It is this intermittency of discharge of organisms by the carrier which makes it possible for him to evade discovery and enables him to continue to give rise to outbreaks among the consumers of food which he handles, even though he may have

been given a clean bill of health when his food handler's certificate was issued.

#### FINDING CARRIERS

The best way to find typhoid carriers is to investigate all known or suspected cases of the disease. Health officials, well trained in the principles of epidemiology, should be available to make such investigations. Copies of all positive laboratory reports on typhoid specimens sent to the physicians of the community should be submitted to the county health officer.

An epidemiologic investigation of the case should be made and a case record should be obtained at the time of the investigation. After obtaining a careful history and ruling out milk and water as possible vehicles of infection, the patient's activities during the past several weeks should be carefully checked to ascertain whether any trips had been taken out of town and to locate places where meals were eaten, together with articles of food consumed, particularly shellfish. If the data are negative up to this point some local condition should be strongly suspected as being responsible for the source of infection. Relatively little weight should be given to the absence of a history of typhoid infection in the person of the housewife who is the food handler but, instead, a supply of specimen containers should be left with the family with the request that specimens of both feces and urine from each member be delivered to the health officer for bacteriologic examination every other day for a period of several days. An extended experience has proved this procedure to be very valuable in discovering carriers among the patient's associates. The examination of a single specimen is believed to be of doubtful value owing to the intermittency of discharge of organisms by typhoid carriers.

It is difficult to convince the family that the local well or spring is not responsible and that the water need not be "examined." In all such instances it should be explained that the only possible way in which the well could become infected would be from the discharges of a patient with active typhoid fever or from a typhoid carrier. However, if any conditions about the well or spring are found which might be of significance recommendations should be made that they be corrected. It is usually readily admitted by the family that there has not been an active case of typhoid in the community



in years. The active case of typhoid fever, then, as a source of pollution for the well or spring, is ruled out of the picture. The other possibility is a carrier and it should be explained to the family that it is much easier to find typhoid carriers by examining specimens of feces than by examining samples of water from a well or spring.

A list of all specimens of feces and urine examined and found positive for the typhoid bacillus by the central laboratory should be submitted monthly to the county health department. This information should be supplied on individual cards giving all the essential data. These cards when they come to the attention of the health officer should be checked in order to determine the status of the person from whom the specimen was submitted with a view to further checkup if necessary. For example, good public health practice demands at least two negative specimens of feces taken on different days before a typhoid fever patient is released from isolation. If for any reason a person is found who has not submitted the required number of specimens for release such a procedure will serve as a reminder to the health officer to get additional specimens for bacteriologic examination. Follow-up visits to patients who have apparently made a clinical recovery have resulted in the submission of additional positive specimens and such patients have subsequently been declared carriers. Closer follow-up with reference to positive laboratory reports will result in finding a considerable number of carriers who otherwise would have been missed.

#### CONTROL OF KNOWN CARRIERS

When a person is found to be a typhoid carrier, he should be taken out of food handling at once. The carrier's name, address and other information should be recorded on a special form for this purpose and filed in the county health department and a duplicate copy forwarded to the state health department. The health officer should visit all typhoid carriers under his supervision at least once every three months. The carrier state should be carefully explained to the carrier. The carrier should be required to sign an agreement that he will not handle food intended for the consumption of others. He should also be given a sheet of printed instructions with reference to preventing the transmission of his infection to others. The following instructions have been found practical and have worked well.

#### INSTRUCTIONS FOR TYPHOID AND PARATYPHOID CARRIERS HOW TO AVOID INFECTING OTHERS

These instructions are intended for convalescing patients still discharging germs as well as for carriers. If such persons be children their parents are responsible for their acts, and the parents are therefore charged with the duty of seeing that the children do not spread the disease to others.

These instructions are issued to John Doe. The germs of Typhoid Fever have been found in your discharges. You are a menace to the health of other people unless you faithfully carry out the following instructions:

1. You should not handle food or drink to be used by others either in your business or at home. Do not go to the icebox or refrigerator. At the table do not handle food except your own. If you happen to leave any food or drink, throw it away and do not let others use it. Have your own eating and drinking utensils and see that they are sterilized by boiling each time after using.

2. Keep yourself and everything about you very clean. After using the toilet, wash your hands with plenty of soap and water. *DO THIS EVERY TIME.* Always dry your hands well after washing. Have your own towel and use no other. Disinfect your underclothing by boiling for five minutes before sending it to the laundry.

3. Every movement from your bowels not passed into a toilet connected with a sewer should be disinfected. Keep a supply of good disinfectant, such as chlorinated lime, cresol or carbolic acid on hand for this purpose. When you use a vessel, thoroughly mix each stool with an equal volume of 5 per cent solution of chlorinated lime or cresol, or a 10 per cent solution of carbolic acid, and let stand four hours. If your house is not accessible to a public sewer be sure to provide yourself with an approved type fly tight sanitary pit privy.

4. Your urine should be disinfected by the same method adopted for the stools. Never urinate upon the ground.

5. Every person with whom you live should be immunized against typhoid and paratyphoid fever every two years. Your physician can obtain typhoid and paratyphoid vaccine from the health officer of your community.

6. Consult your family physician promptly for all cases of illness in members of your family. Should typhoid occur this will facilitate its early discovery.

7. Keep your local health officer informed of change of address. Call on him for a personal talk, for advice as to treatment or other information. See that your urine and stools are re-examined from time to time.

The carrier state should be kept confidential so long as the carrier cooperates in carrying out instructions to prevent the spread of infection to others and should be divulged to no one except the carrier and the health officer.

When a typhoid carrier contemplates a change in address or residence he should notify the health officer under whose jurisdiction he resides of the date of departure, destination and new address. The health officer should forward this information immediately to the State Department of Health, in order that the health officer having jurisdiction over the carrier's new place of abode may be notified of the carrier's arrival.

If the carrier intends to move out of the state, the health officials of the state where he desires to make his new home should be notified by the state department.

*Lake County Health Department.*



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(Address all communications to Box 1018, Jacksonville)

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## LOCAL BOARD APPOINTMENTS— SELECTIVE SERVICE

The Florida Committee on Medical Preparedness is glad to announce that recommendations for appointments to the local boards have been made by the Governor. In every instance, he followed the recommendation of the State Committee on Medical Preparedness. He used for his selection a list which was compiled by the preparedness committees of the various county medical societies. No man who was not first recommended by the county medical society was recommended by him. Such fine co-operation on the part of our Governor with organized medicine must be pleasing to every doctor in Florida.

Colonel H. P. Baya, State Director of Selective Service, has expressed to your Committee his appreciation of the splendid manner in which the doctors over the state have responded to his requests that they serve on the boards. Less than 5 per cent of the men appointed have, for various reasons, stated that they could not serve.

The Selective Service Regulations provide: "If more than one examining physician are needed, the board shall request the Governor to recommend the necessary additional appointments." In several instances already there have

been requests for doctors to be added to the boards in order to make it more convenient for those who have to be examined. These requests and others which may arise from time to time will go to the office of the State Director of Selective Service, St. Augustine, where they will be acted upon after consultation with the Florida Committee on Medical Preparedness.

This Committee wishes to thank the doctors for their generous and prompt response to the request for their services. It is making our work much easier and giving evidence of the willingness of our profession to have an active part in national defense.

## HEALTH AND MEDICAL COMMITTEE ANNOUNCES ITS SUBCOMMITTEES

Subcommittees on medical education, hospitals, industrial medicine, industry, nursing and Negro health have been announced by the Health and Medical Committee of the Council of National Defense. *The Journal of the American Medical Association* for Nov. 2 reports. The general committee, headed by Dr. Irvin Abell of Louisville, Ky., former President of the American Medical Association, was appointed by President Roosevelt on September 19 to survey and coordinate the medical resources of the country in the interests of national defense. *The Journal* adds:

Announcement of the subcommittees was made by Dr. Abell from his office at the Public Health Service Administration Building in Washington. Dr. C. Sidney Burwell, dean, Harvard Medical School, Boston, was named chairman of the subcommittee on medical education. Other members of this group are Dr. L. R. Chandler, Stanford University Hospital, San Francisco; Dr. Harold S. Diehl, dean of the University of Minnesota Medical School; Dr. Willard C. Rappleye, commissioner of hospitals of the city of New York, and Dr. John H. Musser of the Tulane University of Louisiana School of Medicine, New Orleans.

The subcommittee on hospitals includes Dr. Winford H. Smith, director of Johns Hopkins Hospital, Baltimore, chairman; Rev. Alphonse M. Schwitalla, president, Catholic Hospital Association of United States and Canada, St. Louis; Dr. Malcolm T. MacEachern, associate director of the American College of Surgeons, Chicago; Dr. Claude W. Munger, chairman of the defense committee of the American Hospital Association, New York, and Dr. Nathaniel W. Faxon, superintendent of the Massachusetts General Hospital, Boston.

The subcommittee on industrial medicine was set up with Dr. Clarence D. Selby, medical consultant of General Motors Corporation, Detroit, as chairman. Other members of this subcommittee included Prof. Philip Drinker, Harvard School of Public Health, Boston; Dr. E. C. Holmblad, Chicago; Dr. George M. Smith, Yale University Medical School, New Haven, Conn.; Dr. Lloyd Noland, chief surgeon, Tennessee Coal, Iron and Railroad Company, Fairfield Ala.; Dr. William P. Yant, Mine Safety Appliance Company, Pittsburgh, and Dr. A. J. Lanza of the Metropolitan Life Insurance Company, New York.



A subcommittee on dentistry was named with the following members: Dr. C. Willard Camalier, Washington, D. C., former president of the American Dental Association, chairman; Dr. John T. O'Rourke, dean of the University of Louisville School of Dentistry; Dr. Leroy M. S. Miner, dean of the Harvard University Dental School, Boston; Dr. Frederick B. Noyes of Chicago and Dr. Guy S. Millbury of San Francisco, former dean of the Dental School of the University of California.

Miss Mary Beard, director of nursing of the American Red Cross, was named chairman of a subcommittee on nursing, and Dr. M. S. Bousfield of the Julius Rosenwald Fund, Chicago, will head a subcommittee on Negro health.

In announcing these subcommittees, Dr. Abell stated that these subcommittees would assist the Defense Council's Medical Committee in coordinating health and medical activities and in "mobilizing the medical resources of the nation for national defense."

Other members of the Health and Medical Committee on national defense as appointed by the President and the National Defense Council are Major General James C. Magee, Surgeon General of the Army; Rear Admiral Ross T. McIntyre, Surgeon General of the Navy; Dr. Thomas Parran, Surgeon General of the United States Public Health Service, and Dr. Lewis H. Weed, chairman of the Division of Medical Sciences of the National Research Council.

The general committee has already had two meetings and, in addition to setting up its various subcommittees, has considered the need for developing research projects dealing with special problems of military medicine and hygiene. Examples of such special problems are finding better methods of treatment of war wounds, exploring the most modern usages of recently discovered chemicals in the treatment and prevention of disease, problems of aviation medicine, and the most effective measures for the control of the venereal diseases.

The committee is also concerned with the necessity for providing health services in areas surrounding military camps and cantonments and with the health and medical problems resulting from greatly expanded industrial development in certain regions of the country.

The committee hopes to find ways and means of providing adequate medical facilities and personnel, including hospitals, physicians and surgeons, dentists and nurses for the armed forces of the nation without the serious disruption of these essential services on the home front. It is enlisting the services and coordinating the efforts of both governmental and private agencies in building up the health and medical facilities of the nation as part of the present peacetime mobilization.

### A. M. A. BROADCASTS

*Doctors at Work* is the title of the sixth annual series of dramatized radio programs to be presented by the American Medical Association and the National Broadcasting Company.

The series opened Wednesday, November 13, 1940, and will run for thirty consecutive weeks, closing with a broadcast from the A. M. A. meeting at Cleveland, on June 3, 1941. The program is scheduled for 10:30 p. m. Eastern Standard Time over the Blue network, other NBC stations and Canadian stations.

The programs will dramatize what modern medicine offers the individual in the way of opportunities for better health and the more successful treatment of disease. Incidental to this main theme, the programs will explain the char-

acteristics of the different fields of modern medicine and its specialties.

*Doctors at Work* will be broadcast from scripts by Wm. J. Murphy, NBC script writer and author of many previous AMA-NBC "shows" and other popular radio features. It will be produced under the direction of J. Clinton Stanley, director of *Medicine in the News*, last season's successful AMA-NBC health program. Supervision will be by the A. M. A. Bureau of Health Education, directed by W. W. Bauer, M. D.

Descriptive posters for local distribution may be had gratis from the Bureau of Health Education, American Medical Association, 535 N. Dearborn St., Chicago. Program titles will be announced weekly in the *Journal of the A. M. A.* and monthly in *Hygeia*.

### EXAMINATION FOR ARMY MEDICAL CORPS

An examination of applicants for appointment as first lieutenant, Medical Corps, U. S. Army, will be held within the continental limits of the United States, March 10-13, 1941, inclusive. Applications and requests for information concerning this examination should be addressed to the Adjutant General, U. S. Army, Washington, D. C. Applications received after February 20, 1941, will not be considered.

### GEORGIA PEDIATRIC SOCIETY

The Georgia Pediatric Society extends to the members of the Florida Medical Association an invitation to attend its Annual Scientific Meeting to be held in Atlanta on December 12, beginning with a luncheon at 12:30 p. m., and continuing with an afternoon and an evening session. Papers will be presented by nationally known physicians, as follows:

"The Prognostic Value of Renal Function Tests in Nephritis", and "The Role of Diet in the Therapy of Nephritis"—Dr. Lee Edward Farr, Director of Research of the Alfred I. duPont Institute, Wilmington, Delaware.

"The Handicaps of Prematurity and How to Meet Them", and "Water and the Growing Organism"—Dr. Samuel Zachary Levine, Professor of Pediatrics, Cornell University Medical College, New York.

"The Manifestations of Rheumatic Fever in Childhood", and "The Course of Rheumatic



Heart Disease in Childhood and Adolescence"—Dr. Edward F. Bland, Instructor of Medicine, Harvard Medical School and Assistant Physician, Massachusetts General Hospital, Boston.

## CORRESPONDENCE

To the Editor:

MEDICAL DETACHMENT, 124th INFANTRY  
Florida National Guard  
October 30, 1940

Subject: Medical Officers

1. I am writing to inquire if the Florida Medical Association could aid me in obtaining the six medical officers I need to fill out the medical requirements of the 124th Infantry.

2. Young doctors, physically fit, for service, could find in our impending mobilization at the end of November a fine opportunity to get excellent medical training and an assured income of \$224.67 without dependents and \$262.50 with dependents, per month, and the assurance of a Captain's grade as soon as they complete the necessary paper work which would substantially improve their situation. The original appointment would be a first lieutenant, unless they have already qualified in the reserve as captain.

3. I am finding it very hard to contact the men most likely to be interested from my situation in Sanford, and would appreciate any help you could render in getting out an appeal to the younger well-qualified members of the society.

4. Ask any doctor interested to write me at Sanford. The age limit is 45 but we prefer men under 40.

(Signed) Douglas G. Scott,  
Capt. M. C. 124th Inf.,  
Commdg. Med. Det.

## BIRTHS, MARRIAGES AND DEATHS

### BIRTHS

Dr. and Mrs. Robert L. Tolle of St. Louis, Mo., formerly of Brewster, announce the birth of a daughter on October 12.

\* \* \*

Dr. and Mrs. W. O. Arnold of West Palm Beach announce the birth of a daughter, Thelma Jeanne, on August 21.

\* \* \*

Dr. and Mrs. Samuel H. Adams of Tampa announce the birth of a son, John Gale Powel, on September 17.

\* \* \*

Dr. and Mrs. Ralph F. Allen of Miami announce the birth of a son on August 30.

\* \* \*

Dr. and Mrs. I. L. Fishbein of Miami Beach announce the birth of a daughter, Anne Marcia, on October 15.

### MARRIAGES

Dr. J. Frank Wilson of Jacksonville, and Mrs. Ruth Greenlee Bishop were married on September 15 in Douglas, Georgia.

### DEATHS

Dr. Fred Puleston of Daytona Beach died at his home on October 6.

\* \* \*

Dr. Herman Perkins of Panama City died on September 29.

\* \* \*

Dr. Roy J. Holmes of Miami died suddenly on October 9.

## STATE NEWS ITEMS

Invitations for meeting places of the 1942 annual convention of the State Association must be presented to the Executive committee prior to or at the Pre-Convention Meeting. It is the duty of the Executive Committee to investigate the facilities for entertaining the Association and the feasibility of holding the annual meeting where invited, and to recommend the place most desirable to the House of Delegates for approval. (*By-Laws, Chapter VII, Section 2.*)

County medical societies wishing to entertain the 1942 state convention of the Association should make application as early as possible. All invitations should be mailed to Box 1018, Jacksonville.

\* \* \*

President J. Sam Turberville announces that the Pre-Convention Meeting will be held in Orlando, Sunday, January 19. Annual reports of councilors will be read at that time and turned in for publication in the *Journal*. Preliminary reports will be made by chairmen of standing committees. Sunday forenoon will be devoted to meetings of standing committees. A luncheon will be served at noon, followed by a general session where councilors' reports and preliminary reports of committee chairmen will be heard.

\* \* \*

Dr. A. R. Hollender of Miami Beach became president-elect of the American Congress of Physical Therapy at the 19th annual convention of the Congress held in Cleveland, September 2-7. Dr. Hollender was for many years Executive Director of the Congress and managing editor of the *Archives of Physical Therapy*.

\* \* \*

Dr. Frederick H. Dieterich of Miami returned the early part of October from a 2-months' tour during which he studied various medico-legal systems and attended several clinics in internal medicine in the midwestern states.

Dr. Joseph Halton of Sarasota returned recently from a trip to Washington, D. C., where he visited the Cardiovascular-renal Clinic.

\* \* \*

Dr. Taylor W. Griffin of Quincy attended the Intensive Graduate Medical Instruction Course at Tulane University the early part of October.

\* \* \*

The following Florida physicians attended the meeting of the American Academy of Ophthalmology and Otolaryngology, held in Cleveland, October 6-11: M. A. Nickle, Clearwater; W. J. Knauer, Shaler Richardson and A. K. Wilson, Jacksonville; Thomas M. Irwin, Orlando; M. A. Lischkoff, Pensacola; H. J. Blackmon, R. Renfro Duke, Blackburn W. Lowry, and J. W. Taylor, Tampa.

\* \* \*

Dr. F. J. Mantell of Bay Pines returned October 1 from a trip to Chicago where he attended clinics.

\* \* \*

Dr. F. L. Fort of Jacksonville has resigned as orthopedic surgeon for the Florida Crippled Children's Commission and will confine his work to private practice. Dr. John F. Lovejoy of Jacksonville will succeed Dr. Fort on the Commission.

\* \* \*

Members who wish to make application for a place on the scientific program at the annual meeting of the Association to be held in Jacksonville, April 28-30, 1941, are requested to follow the instructions contained in a communication dated October 4 from Dr. Herbert E. White, chairman of the Committee on Scientific Work. If you have mislaid this letter, address Box 1018, Jacksonville, for another copy. All applications must be received prior to January 6, 1941, as no papers will be accepted after that date.

\* \* \*

Dr. Margaret B. Williams completed a short postgraduate course in anesthetics at Bellevue Hospital, New York, recently and has opened offices in Miami.

\* \* \*

Dr. Marshall Faver of Miami spent some time in October doing postgraduate work in major eye surgery at the Chicago Eye, Ear, Nose and Throat Hospital.

Dr. F. S. Whitman of West Palm Beach returned in October from a trip to New York City where he took postgraduate work in cardiology and internal medicine.

\* \* \*

Dr. J. C. Dickinson of Tampa was elected second vice-president of the American Roentgen Ray Society at its meeting held October 1-4 in Boston. Doctors from Florida who attended this meeting were: J. Maxey Dell, Jr., Gainesville; W. McL. Shaw, Jacksonville; J. H. Lucinian and C. P. Truog, Miami; H. Tuttle Stull, St. Petersburg; Joseph Halton, Sarasota; H. O. Brown and J. C. Dickinson, Tampa.

\* \* \*

Dr. A. Judson Graves, who has completed a fellowship in radiology at the University of Pennsylvania, is now associated with Dr. W. McL. Shaw, Jacksonville, in the practice of roentgenology.

\* \* \*

A seminar of the Florida Society of Medical Technicians will be held in the Florida State Board of Health Building, Jacksonville, December 7 and 8, when the following program will be presented:

"The Kahn Test, its Theory and Application". (Full demonstrations will be given)—Dr. Ruben S. Kahn.

"Relationship Between the State Board of Health Laboratories and Private Clinical Laboratories"—Dr. J. N. Patterson.

"Biological Chemistry: Laboratory Applications and Demonstrations"—Dr. L. Y. Dyrenforth.

"Helminthology with Demonstrations"—Dr. William A. Summers.

"The Photoelectric and Optical Colorimeters" (Demonstrations of the use of both)—Mr. S. W. Wells.

"Tissue Technic, with Demonstrations"—Mr. Louis C. Herring.

\* \* \*

Dr. W. Tracy Haverfield, who has completed his residency and training in neurological surgery at the University of Chicago Clinics Hospital, is now associated with Dr. James G. Lysterly, Jacksonville, in the practice of neurological surgery.

\* \* \*

Dr. J. J. Nugent of Miami returned the early part of October, after spending three months at the Mayo Clinic.

The regular meeting of the Florida Society of Dermatology and Syphilology was held in Miami, October 27. Dr. Rothwell Lefholz was chairman of the meeting. An excellent clinic was followed by discussion, luncheon and a business meeting.

\* \* \*

Dr. H. G. Holland of Leesburg returned the early part of October from New York, where he attended the 20th Annual Postgraduate Course at the University of Buffalo.

\* \* \*

Dr. Harrison A. Walker of Miami Beach left the early part of October for a 6-weeks' trip to Washington, D. C., Chicago, the Mayo Clinic, Indianapolis and Louisville, to attend clinics and medical meetings.

\* \* \*

Dr. S. C. Colley of Mount Dora attended the postgraduate course at the University of Buffalo in Buffalo, N. Y.

\* \* \*

Dr. C. Larimore Perry of Miami moved into his newly constructed office building at 525 N. E. 15th Street, the early part of October.

\* \* \*

The following Florida doctors attended the Sixty-ninth Annual Meeting of the American Public Health Association, held in Detroit, October 8-11: W. H. Ball, A. B. McCreary, J. N. Patterson, W. H. Pickett and N. A. Upchurch, Jacksonville; J. R. McEachern, Tampa; and W. E. Van Landingham, West Palm Beach.

\* \* \*

Dr. and Mrs. Charles Northen of Tampa and Ocala announce the marriage of their daughter, Peggy Virginia, to William J. Holton, son of Dr. and Mrs. W. J. Holton of Plant City. The wedding took place in Washington, D. C., August 31.

\* \* \*

Dr. Raymond H. Center of Clearwater announces the removal of his office to the new Center Clinic on East Cleveland Street, which was formally opened November 3.

\* \* \*

Dr. A. R. Beyer of Tampa attended a meeting of the International Medical Assembly in Cleveland in October.

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## FRED PULESTON

Dr. Fred Puleston of Daytona Beach died October 6, at the age of 78.

Born in Manchester, England, in 1862, he came to the United States in 1877 with the boyish hope of becoming a member of the Texas Rangers, an organization whose fame had spread to the British Empire. He traveled extensively in the West for a year and then returned to England, where he remained for four years.

At the age of 20 the spirit of adventure prompted the Manchester youth to apply for a job with the famous Hattan-Cookson company of importers, which handled rubber, palm oil and ivory from the African continent. He was accepted and in 1882 was sent to the town of Cabinda in Belgian Congo, Africa. He was later placed in charge of all the importers' business in the territory, and later was named British vice consul for Bengian Congo. During the years he served there, he made many exploratory trips up rivers never before traveled by white men, and deep into the interior of the continent. He came in close contact with many prominent men, including Sir Roger Casement and Henry M. Stanley, entertaining the latter on his first trip into Africa in his successful search for Dr. David Livingstone. On Stanley's second trip, Dr. Puleston provided river steamers for transportation of all supplies into the interior and accompanied the explorer on part of his trip to relieve Emir Pasha.

After twelve years in Africa, Dr. Puleston returned to England in 1894, remaining there for two years before deciding to come back to this county. He moved to Iowa where, in 1896 he entered medical school at Iowa University, graduating in 1901. For the next seventeen years he practiced medicine in Monticello, Iowa, coming to Florida in 1918 because of ill health. He practiced medicine here until the time of his last illness. His well known book, "African Drums", was published in 1929.

Dr. Puleston is survived by his widow, Mrs. Lucille Waters Puleston; one niece in Daytona Beach, Miss Emily A. Gordon; and two nephews and two nieces in Manchester, England.

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## SOUTHERN PSYCHIATRIC ASSOCIATION

Dr. W. C. McConnell of St. Petersburg was chosen president-elect of the Southern Psychiatric Association at its annual meeting held in Jacksonville, October 21 and 22. Other officers elected were: Dr. James K. Hall, Richmond, vice president; Dr. Walter J. Otis, New Orleans, and Dr. James W. Vernon, Morganton, Va., councilors; and Dr. Newdigate M. Owensby, Atlanta, founder of the organization, re-elected secretary-treasurer. Dr. Arthur J. Schwenkenberg of Dallas, Texas, was installed as president.

The following papers by members from Florida appeared on the scientific program:

"Medical Preparedness"—Edward Jelks, Jacksonville.

"The Jitterbug Age"—W. C. McConnell, St. Petersburg.

"Hypnosis"—Jess V. Cohn, Hollywood.

"The Psychological and Economic Influence of Alcohol"—H. Mason Smith, Tampa.

"Report on Five Cases of Thomsen's Disease" (illustrated), W. H. McCullagh, Jacksonville.

The registration from this State included: Drs. W. G. Miles and W. D. Rogers, Chatahoochee; Jess V. Cohn, Hollywood; Sullivan G. Bedell, Edward Jelks, W. H. McCullagh, and Charles B. Mabry, Jacksonville; I. H. Agos, J. L. Anderson, and P. L. Dodge, Miami; W. H. Spiers, Orlando; W. C. McConnell, St. Petersburg; and H. Mason Smith, Tampa.

The 1941 convention will be held in Nashville.

## MEDICAL DISTRICT MEETING—A

The fourth annual meeting of the Northwest Medical District was held at Pensacola, Saturday afternoon, October 5, with headquarters at the San Carlos Hotel. There was a total registration of 77, of which number 41 were Association members (from this district, 34); 18 were visitors, and 18 were ladies.

The first general session was called to order by Dr. B. A. Wilkinson, senior councilor, at 2:50 p. m. The address of welcome was given by Dr. S. G. Kennedy, president of the Escambia County Medical Society. On behalf of the Leon - Gadsden - Liberty - Wakulla - Jefferson County Medical Society, Dr. J. H. Pound extended an invitation to hold the 1941 medical district meeting in Tallahassee. By unanimous

vote, Tallahassee was designated as the next meeting place.

The gavel was turned over to Dr. W. C. Roberts, junior councilor, who called the scientific session to order. The following scientific papers were presented:

"A Case of Staphylococcus Septicemia Treated With Sulfamethylthiazole," Dr. J. H. Pound, Tallahassee.

"Diagnostic Criteria of Malignancy in Genito-Urinary Tract," Dr. Lee Sharp, Pensacola.

"Treatment of Some of the Common Neuropsychiatric Disorders," (Moving pictures) (By invitation), Dr. W. H. McCullagh, Jacksonville.

The papers were well presented and many of the attending doctors took part in the discussions. Because of illness Dr. R. N. Joyner was not able to read his paper as scheduled.

After a 15-minute intermission, Dr. B. A. Wilkinson, senior councilor, called the second general session to order at 5 p. m. Dr. J. Sam Turberville, president, made a brief address. Dr. Robert B. McIver, chairman of the Council, was recognized and commented on the activities of the Council. Dr. James M. Hoffman, chairman of the Association's Committee on Cancer Control, made a brief report. Dr. D. A. McKinnon, chairman of the Association's Committee on State Controlled Medical Institutions, was not present. Brief addresses were made by the following past presidents: Drs. J. H. Pierpont, Henry E. Palmer, J. C. Davis and Herbert L. Bryans, all of District A., also by Dr. W. Henry Spiers of Orlando. Many interesting bits of medical history were brought out in these talks. The only past president of the district absent was Dr. F. Clifton Moor who was detained because of illness. Several guest doctors were then recognized by the chair: Dr. J. G. Lysterly and Dr. W. H. McCullagh of Jacksonville, Dr. W. Lee Ashton of Umatilla (Dr. Ashton was also introduced as a lieutenant commander, M. C., U. S. N. R.), and Dr. N. A. Baltzell, a past councilor. Captain Frederick Ceres made a timely address, and introduced the military officers present. A vote of thanks was extended to the Escambia County Medical Society, the Local Committee on Arrangements, the local ladies, the hotel management and the hospitals for their contributions to the success of the meeting.

At 6 p. m. the ladies joined the members and guests in the Shantung Room for a social hour which was followed by a buffet supper in the ball room. After the supper a moving picture

film on tuberculosis was shown. During the afternoon the ladies were entertained on a motorcade to points of historic and scenic interest, and with other forms of entertainment supervised by Mrs. S. G. Kennedy and her associates.

#### REGISTRATION—DISTRICT A

*Officers:* B. A. Wilkinson, Tallahassee, senior councilor; W. C. Roberts, Panama City, junior councilor; Stewart Thompson, Jacksonville, managing director.

*Bartow:* C. H. Murphy. *Century:* J. I. Turberville, J. Sam Turberville. *Foley:* A. H. Gleason. *Jacksonville:* J. G. Lyerly, W. H. McCullagh, Robert B. McIver. *Marianna:* N. A. Baltzell, C. D. Whitaker. *Milton:* Rufus Thames. *Orlando:* W. Henry Spiers.

*Pensacola:* Warren Anderson, John D. Bell, Herbert L. Bryans, J. P. Daniels, J. H. Fellows, H. B. Haisfield, H. O. Heath, W. P. Hixon, J. M. Hoffman, S. G. Kennedy, John J. McGuire, J. N. McLane, J. C. McSween, W. C. Payne, J. H. Pierpont, Lee Sharp, Alvin L. Stebbins, R. P. Stritzinger, R. L. Sullivay, C. C. Webb. *Port St. Joe:* A. L. Ward. *Quincy:* J. C. Davis, J. Lloyd Massey.

*Tallahassee:* Francis T. Holland, J. K. Johnston, H. E. Palmer, J. H. Pound. *Umatilla:* W. L. Ashton.

*Visitors—Pensacola:* L. S. Beals, Jr., R. A. Behrent, C. B. Callard, E. C. Carr, Frederick Ceres, J. P. Dobson, C. R. Forrester, Rogers Hederick, A. C. Hohn, Bernard I. Kahn, H. L. Kelley, W. T. Lineberry, S. A. Nichols, Cannon A. Owen, W. S. Randall, A. F. Schinne. *Louisiana — Alexandria:* A. E. Percy.

*Ladies*—Listed on Auxiliary page in this *Journal*.

#### MEDICAL DISTRICT MEETING — B

The fourth annual meeting of the North Central Medical District was held at Lake City, Friday afternoon, October 4, with headquarters at the Blanche Hotel. There was a total registration of 70, of which number 44 were Association members (from this district, 29); 9 were visitors, and 17 were ladies.

Dr. W. S. Nichols, senior councilor, called the first general session to order at 2:55 p. m. The address of welcome was given by Dr. L. J. Arnold, Jr., president of the Columbia County Medical Society. The Chair called for the selection of a meeting place for 1941. Dr. E. G. Peek of Ocala, on behalf of the Marion County Medical Society, invited the group to meet at Ocala; Dr. W. C. Thomas of Gainesville, on behalf of the Alachua County Medical Society, extended an invitation from Gainesville. A vote was taken with the result that Gainesville was designated as the next meeting place for the annual meeting of the North Central Medical District.

The gavel was turned over to Dr. J. L. Sumnerlin, junior councilor, who called the scientific session to order. The following scientific papers were presented:

"The Use of Endocrines in the Treatment of Functional Menstrual Disorders," Dr. T. H. Wallis, Ocala.

"A Summary of Ten Years in Obstetrics," Dr. W. C. Thomas, Gainesville.

"Exanthem Subitum (Roseola Infantum)," (By invitation), Dr. Council C. Rudolph, St. Petersburg.

The papers were well presented and the discussions were extremely interesting.

After a 15-minute intermission the second general session was called to order at 4:50 p. m. by Dr. W. S. Nichols, senior councilor. The Chair recognized Dr. J. Sam Turberville, president, who made a brief address on Association affairs. Dr. Robert B. McIver, chairman of the Council, then outlined the activities of the Council. Dr. Walter C. Jones, Jr., president-elect, discussed some problems that he expected to face during his term of office as president. Dr. J. Maxey Dell, chairman of the Committee on Legislation and Public Policy, and Dr. Robert D. Ferguson, chairman of the Committee on Medical Education and Hospitals, were not present to give their reports. The Chair called for a report from Dr. Gilbert S. Osincup, who is chairman of the Association's Executive Committee, and resides in District E. Dr. Osincup made a brief report. Dr. Gordon H. Ira, of District C, chairman of the Advisory Committee to Woman's Auxiliary was recognized and made a brief report. Dr. Herbert E. White of District C, chairman of the Association's Committee on Scientific Work, also reported briefly and brought a message to the group from Dr. Edward Jelks, chairman of the State Committee on Medical Preparedness. The past presidents of this district, Dr. Albert H. Freeman and Dr. Henry C. Dozier, were not present. It was the first meeting this year at which no past president was in attendance. The following guests from other districts were introduced: Drs. W. H. McCullagh, L. W. Holloway, J. G. Lyerly and H. A. Peyton. Dr. G. C. Tillman, a member of the Association's Committee on Medical Postgraduate Course, made a brief report. On motion by Dr. McIver, a vote of appreciation was extended to the Columbia County Medical Society, the Local Committee on Arrangements, the local ladies, the management of the Blanche Hotel, the hospital officials, and others responsible for contributing to the success of the meeting.

At 6 p. m. the ladies joined the members and guests for a social hour on the mezzanine floor of the Blanche Hotel. At 7 p. m. a banquet was served in the main dining room, which was well attended. Dr. T. H. Bates, toastmaster, called on extemporaneous speakers during the dinner



hour. At 8 p. m. Dr. Bates announced that there would be an exciting high school football game to which all were invited.

The visiting ladies were delightfully entertained during the afternoon, under the supervision of Mrs. L. J. Arnold, Jr., and her associates. They assembled at the Woman's Club for a musical program and a meeting of the District Auxiliary, following which a motorcade was conducted through interesting parts of the city. This included a visit to the big Veterans' Hospital.

#### REGISTRATION—DISTRICT B

*Officers:* W. S. Nichols, Lake City, senior councilor; J. L. Summerlin, Gainesville, junior councilor; Stewart Thompson, Jacksonville, managing director.

*Alachua:* J. A. Goode. *Branford:* P. C. Farnell. *Century:* J. Sam Turberville. *Gainesville:* Edwin H. Andrews, W. Lassiter, John E. Maines, Jr., Walter E. Murphree, John H. Thomas, W. C. Thomas, G. C. Tillman. *Jacksonville:* L. W. Holloway, Gordon H. Ira, A. J. Logie, J. G. Lyerly, W. H. McCullagh, Robert B. McIver, J. Webster Merritt, Harry A. Peyton. *Jasper:* E. C. Crouch. *Lake Butler:* Seeber King, John E. Maines.

*Lake City:* L. J. Arnold, Jr., T. H. Bates, E. F. Brown, Joseph M. Caputo, R. B. Harkness, H. S. Howell, J. F. Pitman. *McIntosh:* J. L. Strange. *Mayo:* O. F. Green. *Miami:* Walter C. Jones, Jr. *Micanopy:* I. A. Dailey. *Ocala:* H. L. Harrell, Carl S. Lytle, C. W. Mimms, E. G. Peek, T. H. Wallis, H. F. Watt. *Orlando:* L. C. Ingram, Gilbert S. Osincup. *St. Augustine:* Herbert E. White. *St. Petersburg:* C. C. Rudolph.

*Visitors—Jacksonville:* W. Tracy Haverfield. *Lake City:* Hugh R. Dougherty, W. W. Hendricks, W. M. Ives, Garrett V. Johnson, W. E. Saye. *Raiford:* O. L. Kelley, R. P. Stubbins.

*Ladies*—Listed on Auxiliary page in this *Journal*.

#### MEDICAL DISTRICT MEETING—C

The fourth annual meeting of the Northeast Medical District was held at Daytona Beach, Thursday afternoon, October 3, with headquarters at the Ocean Dunes Club. There was a total registration of 77, of which number 50 were Association members (from this district, 43); 7 were visitors and 20 were ladies.

The first general session was called to order by Dr. Robert B. McIver, senior councilor, at 2:30 p. m. The address of welcome was given by Dr. L. V. L. Brown, president of the Volusia County Medical Society. An invitation to hold the 1941 annual meeting in St. Augustine was extended by Dr. Herbert E. White on behalf of the St. Johns County Medical Society. A vote was taken and St. Augustine was officially designated as the place of the 1941 annual meeting.

The Chair then turned the gavel over to Dr. Maximilian Stern, junior councilor, who called the scientific session to order. The following scientific papers were presented:

"Amnesia and Short Labor," Dr. George M. Green, Daytona Beach.

"Staphylococcus Toxoid in Impetigo," Dr. T. F. Hahn, DeLand.

"The Splenomegalies With Surgical Indications," (By invitation), Dr. J. W. Snyder, Miami.

The papers were well presented and many doctors took part in the discussions.

After a 15-minute intermission Dr. Robert B. McIver, senior councilor, called the second general session to order at 4:45 p. m. Dr. Turberville, president, made a brief but interesting talk on the affairs of the Association. Dr. McIver, chairman of the Council, then reported on the activities of the Council. Dr. Walter C. Jones, Jr., president-elect, was then recognized and mentioned some problems to be considered during the next year when the responsibilities of the presidency will be handed over to him. The following chairmen of standing committees were recognized and made short talks: Dr. Gilbert S. Osincup, Executive Committee; Dr. Herbert E. White, Committee on Scientific Work; Dr. J. Ralston Wells, Committee on Public Relations; Dr. T. Z. Cason, Committee on Medical Postgraduate Course; Dr. E. T. Sellers, Committee on Venereal Disease Control; Dr. Edwin C. Swift, Committee on Inter-Relationship, and Dr. Gordon H. Ira, Advisory Committee to Woman's Auxiliary. Of the six past presidents of the Association living in this medical district, Dr. Edward Jelks was the only one present. Dr. W. Henry Spiers, past president of the Association from District E, was present and was recognized by the Chair. Dr. Louie Limbaugh, a member of the Executive Committee, was also introduced. Dr. A. B. McCreary, State Health Officer, made a brief talk on the problems of the State Board of Health.

Dr. Edward Jelks, chairman of the Association's Committee on Medical Preparedness, made a report of his trip to Chicago where the National Committee on Preparedness and representatives from the various state medical associations assembled on September 20. He also reviewed the activities that have been carried on thus far. In closing, Dr. Jelks stated that the medical preparedness committees of county medical societies in the state would be kept informed of any new activities in connection with this medical preparedness setup.



A vote of appreciation was extended to the Volusia County Medical Society, the members of the Local Committee on Arrangements, Mr. Amos Deatherage, president of the Ocean Dunes Club, and Mrs. Mattee Perry, manager of the Perrydell Tea House, for their efforts in contributing to the success of the meeting.

From 6 to 7 p. m. the social hour for members, guests and ladies was held in the lounge of the Ocean Dunes Club. At 7 p. m. a barbecue supper was served, with Drs. von Meysenbug, Green, Rutter, and Miller of the Local Committee on Arrangements, in charge. In addition to the many other delicacies included on the menu the barbecued pork and lamb, according to reports, were a special treat. The members of the Local Committee not only looked after the preparation of this feast but put on their big aprons and took a hand in the serving. Off the record, it was learned that Dr. Miller personally supervised the barbecuing.

After a meeting of the District Auxiliary, the ladies were taken during the afternoon on a sightseeing motorcade, which, with other delightful entertainment was under the supervision of Mrs. George Green and her associates.

#### REGISTRATION—DISTRICT C

*Officers:* Robert B. McIver, Jacksonville, senior counselor; Maximilian Stern, Daytona Beach, junior counselor; Stewart Thompson, Jacksonville, managing director.

*Century:* J. Sam Turberville. *Cocoa:* T. C. Kenaston. *Daytona Beach:* P. A. Drohomer, George M. Green, W. L. Jennings, R. L. Miller, M. J. Myres, J. E. Rawlings, M. Josie Rogers, Joseph H. Rutter, Morris B. Seltzer, J. Ralph Vallotton, Ludo von Meysenbug, J. Ralston Wells. *DeLand:* L. V. L. Brown, T. F. Hahn, Hugh West. *Grandin:* Z. Brantley. *Holly Hill:* C. O. Sayres.

*Jacksonville:* Sullivan G. Bedell, T. Z. Cason, Lucien Y. Dyrenforth, L. W. Holloway, Gordon H. Ira, Edward Jelks, S. I. Kemp, Louie Limbaugh, J. G. Lyerly, A. B. McCreary, S. R. Norris, G. Frederick Oetjen, E. T. Sellers, E. C. Swift, E. H. Teeter, F. Merrill Wattles.

*Melbourne:* I. M. Hay. *Miami:* Walter C. Jones, Jr., J. W. Snyder. *New Smyrna Beach:* W. C. Chowning, Harry Z. Silsby. *Orlando:* Gilbert S. Osincup, W. Henry Spiers. *Palatka:* F. Emory Bell, Allen P. Gurganious. *Pierson:* P. L. Moon, Jr. *St. Augustine:* Charles C. Grace, A. C. Walkup, Herbert E. White.

*Visitors—Daytona Beach:* Vaughan A. Shaw, K. R. Whitney. *DeLand:* Sarah Maiden. *Jacksonville:* Fred H. Bowen, W. Tracy Haverfield. *Ormond:* Frank A. Hill.

*Ladies*—Listed on Auxiliary page in this *Journal*.

## COMPONENT COUNTY SOCIETIES

### DADE

The regular meeting of the Dade County Medical Society was held on Wednesday evening, October 2. The following program was presented:

"A Study of Peripheral Vascular Disease in the Negro", Dr. S. Charles Werblow; discussion by Drs. E. Sterling Nichol and Max Dobrin.

"The Clinical Application of Some Newer Forms of Vitamin Therapy", Dr. James L. Anderson; discussion by Drs. Paul Kells and William H. Izlar.

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### DUVAL

Dr. Robert M. Baker was principal speaker at the meeting of the Duval County Medical Society, held October 1 at 8:15 p. m., at the Library of the State Board of Health. His paper on "New and Advanced Methods in the Treatment of Specific Urethritis" was discussed by Drs. E. T. Sellers and E. W. Veal.

A business meeting followed the scientific session, after which refreshments were served.

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### ESCAMBIA

Dr. Kenneth Phillips of Miami addressed the Escambia County Medical Society, by invitation, on October 8. His subject was "Recent Advances in Physical Therapy".

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### JACKSON

At the August meeting of the Jackson County Medical Society, Dr. D. A. McKinnon Jr., a junior surgeon in the Mayo Clinic, addressed the group on "Comparative Surgical and Medical Management of Splenic Anemia". Dr. J. Sam Turberville of Century spoke on "The Ethical Relationship of Physician and Patient", and Dr. R. N. Joyner of Marianna presented a paper on "Carcinoma of the Cervix Complicating Pregnancy."

Dr. W. R. Wandeck, president of the society, presided. Other guests who attended were: Dr. Herbert Bryans, Pensacola; Drs. C. K. Hayes and W. G. Miles of Chattahoochee; and Drs. R. D. Crawford, John T. Ellis, and S. G. Latiolais of Dothan, Ala.

## MARION

At the October meeting of the Marion County Medical Society, held on the evening of October 17, Dr. H. L. Harrell was elected to fill the unexpired term of Dr. R. C. Cumming as secretary. Dr. Cumming has been called to active duty as a medical reserve officer in the Army. Dr. R. D. Ferguson was elected a member of the County Preparedness Committee in Dr. Cumming's place.

Other routine business matters were considered.

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## PINELLAS

The Annual Election of Officers of the Pinellas County Medical Society was held on the evening of October 6, and resulted as follows: *president-elect*—Dr. M. A. Nickle; *first vice president*—Dr. A. S. Anderson; *second vice president*—Dr. A. R. Frederick; *secretary-treasurer*—Dr. W. C. McConnell; *censors*—Drs. W. W. Harden and W. G. Post, Jr. Dr. N. W. Gable, Jr., was installed as the new president, and the past-president's plaque presented to Dr. J. A. Herring.

The following delegates and alternates were elected: *delegates*—Drs. C. A. Williams, H. W. Wade, J. A. Herring, N. W. Gable, Jr., W. C. McConnell; *alternates*—Drs. A. J. Wood, G. M. Lochner, R. K. O'Brien, R. H. Knowlton and J. B. Quicksall.

On the evening of October 11, the members of this society were guests of the Army and Navy Club. Brig. Gen. C. L. Tinker of MacDill Field spoke on "European Aerial Warfare".

At the Society meeting held October 18, Dr. J. A. Herring gave the Retiring President's Address. His subject was "Use of the Miller-Abbott Tube".

The 1941 FLORIDA MEDICAL DIRECTORY will contain advertising displays by:

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Other firms who wish to secure space in the new Directory are requested to make application at once to the Florida Medical Association, Box 1018, Jacksonville.

## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**Gastrointestinal Diseases and Their Relation to Focal Infection, BIPPUS, WILLIAM E., West Palm Beach, J. Florida S. Dental Soc. 11: 14-15 (June), 1940.**

Many believe that gastritis, peptic ulcers, dyspepsia, cholecystitis, ulcerative colitis and other gastrointestinal disorders have their origin in focal lesions of the mouth. Vitamin deficiency states serious enough to exhibit gastrointestinal pathology are commonly visualized in the mouth.

The author urges careful elimination of dental foci but warns against indiscriminate removal of teeth merely in the hope of improvement.

**Dental Hygiene in Pregnancy, WOODS, E. BRYANT, Tampa, J. Florida S. Dental Soc. 11: 6-13 (Aug.), 1940.**

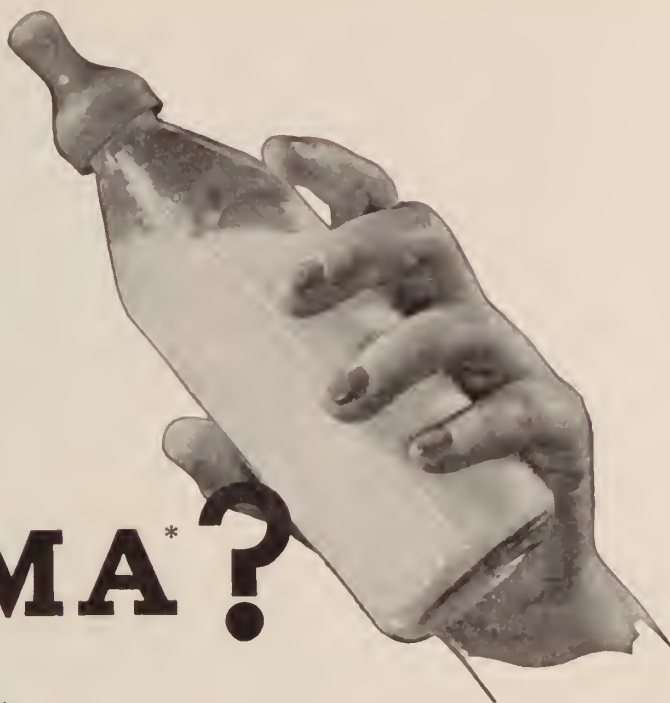
The necessity for detailed dental examination and treatment of the pregnant woman is discussed. The endocrine features of pregnancy along with fetal dental physiology is treated at length. The author emphasizes the need for vitamin administration and adequate diets particularly rich in calcium during pregnancy as a means of dental conservation.

**The Responsibility of the Individual to His Local, State and National Societies, BRYANS, HERBERT L., Pensacola, J. Florida S. Dental Soc. 10: 9-11 (Oct.), 1939.**

Bryans emphasizes the fact that the aims of both the dental and medical professional organizations are primarily to contribute to a common fund the experience and knowledge of the individual professions.

Cooperation with each individual's respective Society is urged in order that this may be more fully accomplished and that these organizations may present a well knit and formidable protection against revolutionary "forces of propaganda".

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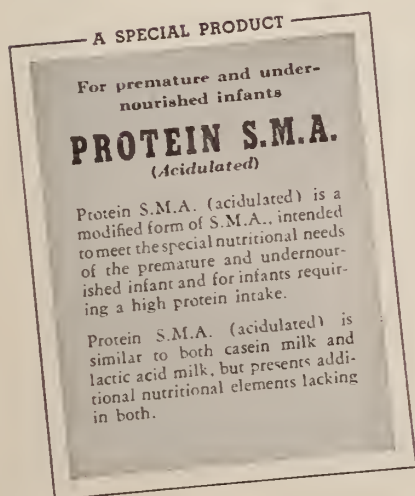
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200 international units vitamin B<sub>1</sub>  
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S.M.A. provides easily digested fat and protein of full biological value in correct proportion to the nutritional requirements of the normal full term infant. Therefore, the only carbohydrate in S.M.A. is Lactose . . .

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## BOOKS RECEIVED

*Acknowledgment of books received will be made in this column and this will be deemed by us a full compensation to those sending them. A selection will be made for review, as expedient.*

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY of the American Medical Association for 1939 with the Comments That Have Appeared in The Journal. Cloth. Price \$1. Pp. 205, with 5 illustrations. Chicago: American Medical Association, 1940.

Only 7 of the 35 reports listed in this annual collected report are of the familiar "Not Acceptable" or condemnatory type. Two reports announce omission of products from N.N.R., one being off the market. The remainder far superior in bulk as well as in number, are concerned with educational and constructive considerations. This trend has been noticeable in recent years; it reflects the great predominance of the constructive over what may be called the destructive side of the Council's work of promoting rational therapeutics.

The educational reports touch three fields on which lie the front lines of present day therapeutics progress—chemotherapeutics, endocrines and vitamins. Two reports on sulfapyridine deal with the status and Council acceptance of commercial brands. The report on Neoprontosil recognizes that term as the Winthrop Chemical Company's proprietary name for 4-sulfonamide benzene-2-azo-1-hydroxy-7-acetyl amino naphthalene-3:6-disodium sulfonate, and azosulfamide as the nonproprietary name for the same substance. The articles on Dilantin Sodium, Sobisminol Mass and Sobisminol Solution are status reports which accompanied the descriptions of accepted brands, a type of article increasingly used by the Council. Dilantin sodium is the new drug used in the treatment of epilepsy and has been accepted by the Council with carefully stated limitations for its use; sobisminol mass and sobisminol solution are new soluble bismuth preparations for use in the treatment of syphilis; they are noteworthy in that sobisminol mass has been shown to be effective when used orally. The reports on racephedrine and nikelthamide deal with nomenclature; these terms are recognized as nonproprietary names for racemic ephedrine (the sulfate and hydrochloride are also recognized) and pyridine-3-carboxylic acid diethylamide respectively; the latter was introduced into medicine under the proprietary name Coramine-Ciba and was the subject of a preliminary report by the Council in 1929 (*THE JOURNAL*, June 1, 1929, p. 1837).

The status report on questions concerning vitamins compiled by the Cooperative Committee on Vitamins of the Councils on Pharmacy and Chemistry and on Foods is becoming an almost annual event, awaited for the revisions of the "Allowable Claims" found acceptable for the various vitamins. This year's revisions are not extensive but the report is noteworthy for the reemphasis of the Council's stand on the subject of vitamins and vitamin mixtures. Alas, the Council's is but one clear, authoritative voice of rationality in today's whirlwind of poly-vitamin and polyvitamin-mineral absurdities foisted on the gullible public by astute and sophisticated advertising technic. The preliminary and supplementary reports by Snell and by Snell and Butt on the new principle for active hemorrhagic diathesis known as "vitamin K" are timely and noteworthy.

The leadership of the Council in matters of endocrine therapeutics and nomenclature is well sustained by these reports as Chorionic Gonadotropin, Assay Standards for Chorionic Gonadotropin, Stilbestrol and the Present Status of Testosterone Propionate: Three brands, Perandren, Oreton and Neo-Hombreol. Not Acceptable for N.N.R. No brand of any of these has been accepted and these reports are excellent justification of the Council's intelligent and well informed conservatism in this as in other matters.

Three "special" reports are worthy of mention. One is the warning report on the dosages of intra-urethral injection of solutions of local anesthetics, a reaffirmative strengthening of previous Council pronouncements. One is the Council statement Manganese in the Treatment of Dermatologic Disorders, which is buttressed by the concise and well documented paper of Dr. Maurice Sullivan, considered and sponsored by the Council. The third is the Study of the Promiscuous Use of the Barbiturates, Their Use in Suicides, a paper by Dr. W. E. Hambourger based on a review of medical literature and study of vital statistics. This study was authorized by the Board of Trustees of the A.M.A. and will be followed by other papers dealing with other aspects of the problem.

The present annual volume of Council reports is somewhat larger than usual and somewhat above the average issue in interest.

## ADVERTISERS' NOTES

### LIVER EXTRACTS, LILLY

Since the demonstration of the effectiveness of liver in pernicious anemia by Minot and Murphy and the early chemical work on this substance by Cohn and his co-workers, there has been steady progress toward the purification and eventual isolation of this substance. In order to simplify identification of various fractions now in general use, Eli Lilly and Company has revised its labels and the names identifying certain of the Liver Extracts, Lilly.

The fraction earlier supplied in powder form as Liver Extract No. 343 is now designated Liver Extract, Lilly, each 12.75 Gm. or three vials containing 1 U. S. P. unit for oral administration. Ampoules Solution Liver Extract, 1 U. S. P. unit per cc., is identical with the product formerly entitled Solution Liver Extract, Lilly, and Ampoules Solution Liver Extract, 2 U. S. P. units per cc., is the product previously available as Solution Liver Extract, Concentrated, Lilly. Solution Liver Extract Purified is now marketed as Ampoules Solution Liver Extract, 15 U. S. P. units per cc.

### VITAMIN-FREE FOODS FOR RESEARCH!

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### VITAMIN ADVERTISING AND THE MEAD JOHNSON POLICY

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### DISTRICT CHAIRMEN

Mrs. G. C. TILLMAN, North Central "B" ..... Gainesville  
Mrs. E. W. VEAL, Northeast "C" ..... Jacksonville  
Mrs. CLYDE ANDERSON, Southwest "1" ..... St. Petersburg  
Mrs. J. N. TOLAR, South Central "E" ..... Sanford  
Mrs. H. A. LEAVITT, Southeast "F" ..... Miami

## DISTRICT MEETINGS

Opening with a luncheon at 12 o'clock at the Ocean Dunes Club, a joint meeting of the State Auxiliary board and the State Advisory committee was held at Daytona Beach, October 3, in connection with the fourth annual meeting of the Northeast Medical District of the Florida Medical Association.

Immediately following the luncheon a business session was held at which time Mrs. Gordon H. Ira, president, presided. Reports of committee chairmen were heard and the program was outlined for the coming year.

Dr. J. Sam Turberville, of Century, president of the Florida Medical Association, was guest speaker. He emphasized the importance of working in harmony with the state and national organization and paid high tribute to work already accomplished by the various county auxiliaries.

Dr. Gordon H. Ira, of Jacksonville, chairman of the Association's Advisory Committee, also addressed the Board and drew up the charges to be sent to all county auxiliaries as a guide during the coming year. Dr. Ira congratulated the auxiliary on its work and expressed confidence in the activities of the various departments.

A bridge tea was given in the afternoon at Perrydell. The tea table was overlaid with a linen lace cloth and centered with two low arrangements of pink rose buds in blue and silver containers and lovely pink lustre candlesticks. Presiding at the tea table were Mrs. Gordon H.

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Ira and Mrs. Maximilian Stern. Mrs. A. E. Drexel received the prize for high score in the bridge games.

At 6 o'clock the women joined the doctors for cocktails and a barbecue at the Ocean Dunes Club. More than 70 attended.

Mrs. George M. Green was general chairman of arrangements and Mrs. Joseph H. Rutter was in charge of the bridge tea. Assisting Mrs. Green and Mrs. Rutter with serving the barbecue were Mrs. W. L. Jennings and Mrs. Morris Seltzer.

The following day Mrs. Ira and several members of her board attended the District Auxiliary meeting at Lake City. The ladies were escorted to the Woman's Club where delicious refreshments were served and a lovely program had been arranged by Mrs. George C. Tillman of Gainesville. Mrs. James Arnold, president of the local auxiliary, presided. About 35 attended the meeting.

## REGISTRATION

### DISTRICT A

Pensacola, October 5

*Bartow:* Mrs. C. H. Murphy. *Marianna:* Mrs. N. A. Baltzell, Mrs. Annie B. McKinnon. *Panama City:* Mrs. W. C. Roberts. *Pensacola:* Mrs. J. D. Bell, Mrs. E. C. Carr, Mrs. J. P. Daniels, Mrs. H. B. Haisfield, Mrs. J. M. Hoffman, Mrs. H. L. Kelley, Mrs. S. G. Kennedy, Mrs. W. T. Lineberry, Mrs. A. L. Stebbins, Mrs. R. P. Stritzinger. *Tallahassee:* Mrs. F. T. Holland, Mrs. H. E. Palmer, Mrs. B. A. Wilkinson. *Warrington:* Mrs. A. C. Hohn.

### DISTRICT B

Lake City, October 4

*Branford:* Mrs. P. C. Farnell. *Gainesville:* Mrs. Edwin H. Andrews, Mrs. John E. Maines, Jr., Mrs. Walter E. Murphree, Mrs. J. L. Summerlin, Mrs. J. H. Thomas, Mrs. George C. Tillman. *Jacksonville:* Mrs. S. M. Copeland, Mrs. Gordon H. Ira, Mrs. F. W. Krueger. *Lake City:* Mrs. L. J. Arnold, Jr., Mrs. T. H. Bates, Mrs. E. F. Brown, Marie Nichols. *McIntosh:* Mrs. J. L. Strange. *Ocala:* Mrs. Carl Lytle. *Orlando:* Mrs. L. C. Ingram.

### DISTRICT C

Daytona Beach, October 3

*Daytona Beach:* Mrs. George M. Green, Mrs. W. L. Jennings, Mrs. John C. Langley, Mrs. J. H. Rutter, Mrs. M. B. Seltzer, Mrs. J. Ralston Wells, Mrs. K. R. Whitney. *DeLand:* Mrs. T. F. Hahn. *Jacksonville:* Mrs. S. G. Bedell, Mrs. S. M. Copeland, Nancy Hughes, Mrs. Gordon H. Ira, Mrs. F. W. Krueger, Mrs. Robert B. McIver, Mrs. J. H. Owens, Mrs. E. W. Veal. *New Smyrna Beach:* Mrs. Harry Z. Silsby. *Palatka:* Mrs. F. Emory Bell, Mrs. Allen P. Gurganious. *St. Augustine:* Miss Agnes L. Sawby.

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S. F. 3 ...	Employer's Supplementary Report of Injury	F. I. C. 9	Final Medical Report	
S. F. 4 ...	Agreement as to Compensation	F. I. C. 10	Employee's Notice of Injury to Employer	
S. F. 5 ...	Final Compensation Settlement Receipt	F. I. C. 11	Election of Employee where a Third Party is Involved	
F. I. C. 6	Notification of Securing Compensation	F. I. C. 12	Notice to Convert Payment of Compensation	
F. I. C. 7	Employer's Notice to Reject			

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### STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association	J. Sam Turberville, Century	Shaler Richardson, Jacksonville	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:			
—Northwest	B. A. Wilkinson, Tallahassee	Stewart Thompson, Jacksonville	Tallahassee, 1941
—North Central	William S. Nichols, Lake City	" " "	Gainesville, 1941
—Northeast	Robt. B. McIver, Jacksonville	" " "	St. Augustine, 1941
—Southwest	W. C. McConnell, St. Petersburg	" " "	Bartow, 1941
—South Central	A. M. Sample, Ft. Pierce	" " "	Orlando, 1941
—Southeast	Kenneth Phillips, Miami	" " "	Ft. Lauderdale, 1941
Alabama Medical Association	Samuel A. Gordon, Marion	D. L. Cannon, Montgomery	Mobile, Ala., Apr. 15-17, 1941
Georgia Medical Assn. of	J. C. Patterson, Cuthbert	E. D. Shanks, Atlanta	Macon, May 13-16, 1941
Florida—			
Chapter, Am. College Phys.	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami	Jacksonville, 1941
State Dental Society	E. B. Penn, Miami	E. C. Lunsford, Miami	St. Petersburg, Nov., 1940
Soc. of Derm. and Syph.	Alan Brown, Jacksonville	Mrs. Phyllis Leonard, St. Augustine	Jacksonville, 1941
East Coast Medical Association	I. M. Hay, Melbourne	J. S. Stewart, Miami	
State Hospital Association	W. L. Shackelford, W. Palm Bch.	Mr. T. F. Alexander, Jacksonville	New Orleans, 1941
Soc. of Industrial Surgeons	A. M. Bidwell, Tampa	T. H. Roberts, Lakeland	Jacksonville, 1941
Medical Postgraduate Course	Turner Z. Cason, Jacksonville	Chairman	
Soc. of Ophthal. & Otol.	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami	Jacksonville, 1941
Nurses Association	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Pediatric Society	Warren W. Quillian, Coral Gables	G. N. Leonard, Miami Beach	Fall, 1940
Pharmaceutical Association	Mr. S. F. Harris, Jacksonville	Mr. A. W. Morrison, Miami	
Public Health Association	A. B. McCreary, Jacksonville	E. M. L'Engle, Jacksonville	Tampa, Dec. 5-7, 1940
Radiological Society	J. H. Lucinian, Miami	E. M. Hendricks, Ft. Lauderdale	Jacksonville, 1941
Railway Surgeons' Association	Leland F. Carlton, Tampa	W. C. Page, Cocoa	Jacksonville, 1941
Tuberculosis & Health Assn.	Mr. E. M. Newald, Orlando	Mrs. C. R. Whitaker, Eustis	
Wachoochee Valley Med. Assn.	Frank K. Boland, Atlanta	Robert B. McIver, Jacksonville	Jacksonville, July 8-10, 1941
West Coast Clinical Society	J. H. Dodson, Mobile	C. C. Rouse, Mobile	
Sec., Am. Cong. Phys. Ther.	E. C. MacCordy, St. Petersburg	Kenneth Phillips, Miami	Chattanooga, May, 1941
Eastern Surgical Congress	Irvin Abell, Louisville	B. T. Beasley, Atlanta	Richmond, Va., Mar., 1941
Western Medical Association	Paul H. Ringer, Asheville	Mr. C. P. Loran, Birmingham	St. Louis, November, 1941.
Wachoochee River Medical Society	T. H. Bates, Lake City	H. S. Howell, Lake City	

## COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	Amsie H. Eiseby, M.D. Panama City	William C. Roberts, M.D. Panama City		11	100%	A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 144 Pensacola	2nd Tuesday 8:00 P. M.	46	41	
	Walton-Okaloosa	A. G. Williams, M.D. Lakewood	R. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		8	7	
	Franklin-Gulf	Thos. Meriwether, M.D. Wewahatchka	J. R. Nortou, M.D. Port St. Joe	3rd Thursday	7	100%	A-2-'41 B. A. Wilkinson, M.D. Tallahassee
B	Jackson *Calhoun	W. R. Wandek, M.D. Marianna	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	12	10	
	Leon-Gadsden-Liberty- Wakulla-Jefferson	Francis T. Holland, M.D. 208 Midyette-Moor Bldg. Tallahassee	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 5:00 P. M.	41	40	Northwest District (A) Tallahassee 1941
	Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	14	8	B-3-'41 W. S. Nichols, M.D. Lake City
	Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		9	5	
	Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	8	7	
C	Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	31	24	B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion *Levy	Henry C. Dozier, M.D. 9 No. Magnolia St. Ocala	H. L. Harrell, M.D. 215 Robertson Bldg. Ocala	3rd Thursday 12:30 P. M.	24	100%	
	Pasco-Hernando- Citrus	Wm. H. Walters, Jr., M.D. Lacoochee	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	100%	North Central District (B) Gainesville 1941
	Duval *Clay, Nassau	Chas. B. Mabry, M.D. 439 St. James Bldg. Jacksonville	Lauren M. Sompayrac, M.D. 459 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	180	179	C-5-'41 R. B. McIver, M.D. Jacksonville
	St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10	100%	N. E. District (C) St. Augustine 1941
D	Putnam	G. M. Zeagler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	12	11	C-6-'42 Maximilian Stern, M.D. Daytona Beach
	Volusia *Flagler	L. V. L. Brown, M.D. DeLand	R. L. Miller, M.D. 258 1/2 S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	40	36	
	Hillsborough	John R. Rolling, M.D. 1207 First Nat. Bk. Bldg. Tampa	James S. Grable, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	111	101	D-7-'41 W. C. McConnell, M.D. St. Petersburg
	Manatee	M. M. Harrison, M.D. Professional Bldg. Bradenton	W. E. Wentzel, M.D. Box 245 Bradenton	3rd Tuesday 7:00 P. M.	14	100%	
	Pinellas	John A. Herring, M.D. 259 Third St., No. St. Petersburg	W. C. McConnell, M.D. 313 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	105	100%	
E	Sarasota	Millard B. White, M.D. 151 S. Pineapple Ave. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	16	14	
	DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	100%	D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	A. S. Byle, M.D. 311 2nd St. Fort Myers	Fred D. Bartleson, M.D. Fort Myers	3rd Friday 7:30 P. M.	14	100%	
	Polk	Henry Fuller, M.D. Mulberry	Jere W. Annis, M.D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62	59	Southwest District (D) Bartow 1941
	Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Wednesday	12	11	E-9-'42 J. R. Chappell, M.D. Orlando
F	Lake *Sumter	W. L. Ashton, M.D. Umatilla	Harry B. Smith, M. D. Acting Tavares	1st Thursday 12:30 P. M.	17	15	
	Orange *Osceola	Chas. J. Collins, M.D. 209 Exchange Bldg. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87	86	
	Seminole	Wade H. Garner, M.D. Sanford	Douglas G. Scott, M.D. 212 N. Park Ave. Sanford	2nd Monday 7:00 P. M.	13	100%	South Central District (E) Orlando 1941
	St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	19	100%	E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	39	100%	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	James H. Pittman, M.D. Box 602 W. Palm Beach	C. Jennings Derrick, M.D. Box 574 W. Palm Beach	1th Monday 8:00 P. M.	64	100%	S. E. District (F) Ft. Lauderdale 1941
	Dade	Joseph S. Stewart, M.D. 525 duPont Bldg. Miami	Franz Stewart, M.D. 525 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	320	274	F-12-'41 Kenneth Phillips, M.D. Miami
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. H. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	

\*Supervise and aid until organized separately.





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of the

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### CONTENTS

Medicine, Public Health and Local Government	
A. B. McCreary, M. D., Jacksonville	279
Acute Cholecystitis	
Julius C. Davis, M. D., Quincy	283
Tumors of the Brain in Children	
Paul C. Bucy, M. D., Chicago and W. Tracy Haverfield, M. D., Jacksonville	287
Vertigo	
M. A. Nickle, M. D., Clearwater	293
The Infected Hand	
C. C. Webb, M. D., and A. E. Mock, M. D., Pensacola	296
Editorials: Medical Officers Needed for Permanent Positions; Supreme Court Rules Osteopaths May Be Barred from Use of Hospital	300
Recommendations of Doctors for Board Assignments—Selective Service in Florida	301
Industrial Health Congress to Discuss Defense Problems	302
Applications to Present Papers at Annual Meeting—Jacksonville	303
Births, Marriages and Deaths	303
State News Items	303
Medical District Meeting "D"	306
Medical District Meeting "E"	307
Medical District Meeting "F"	308
Component County Societies	309
Advertisers' Notes	312
Woman's Auxiliary	312
State and Sectional Meetings	317
Component Societies by Districts	318

### NEXT SESSIONS

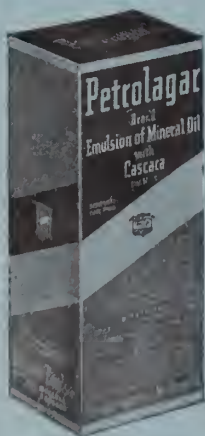
American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, St. Louis, November, 1941





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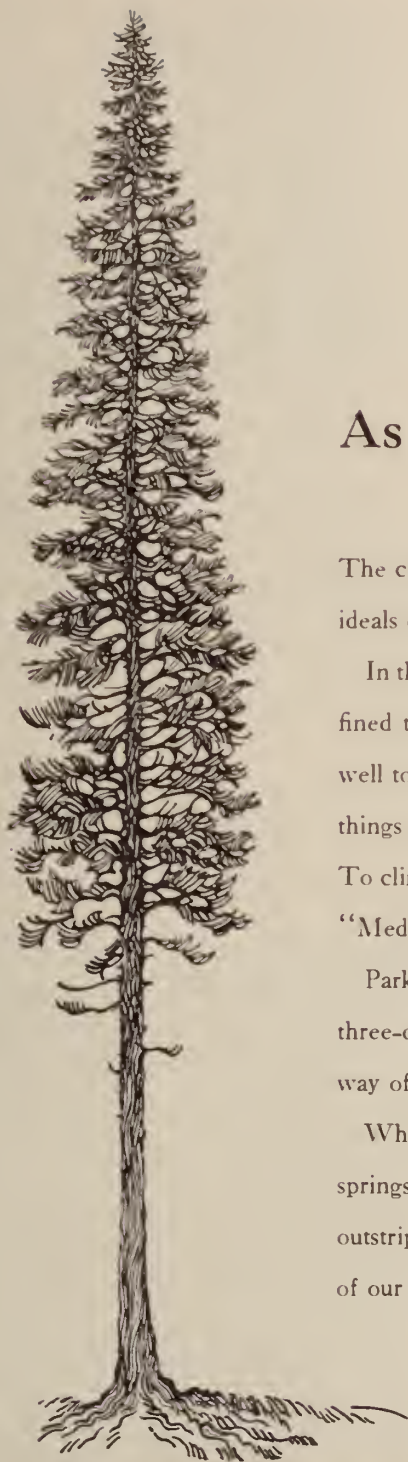
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## STUDIES IN THE AVITAMINOSES



This page is the final of a series on vitamin deficiencies presented by the research division of The Upjohn Company because of the profession's widespread interest in the subject. A full color, two-page insert on the same subject appears in the December 7 issue of The Journal of the American Medical Association.

### The Exacerbation of LATENT PELLAGRA by Acute Infections

Vitamin requirements are increased by many factors, especially by acute infectious disease. Field, commenting on this phenomenon, states that the onset of pellagra may coincide with pregnancy, organic gastrointestinal disease, severe and prolonged illnesses, and dietary restriction for therapeutic purposes. The patient whose tongue is shown developed this manifestation of pellagra during the course of lobar pneumonia. After nicotinic acid therapy was started she coughed up a cast of the esophagus which consisted of a grey membrane similar to that covering the tongue. The pellagrous symptoms responded promptly to treatment.



Illustration courtesy of Virgil P. W. Sydenstricker, M.D.,  
University of Georgia Medical School, Augusta, Ga.

### The Coexistence of Vitamin Deficiency States

Many authors have recently presented evidence that vitamin deficiency states often are multiple. Strauss has called attention to the fact that deficiency disease in man, unlike that experimentally produced in animals, is rarely limited to a single factor. The patient whose hands are shown had partaken of a markedly deficient diet for several months. As a result, scurvy and pellagra developed concurrently. The ecchymoses of the former and the dermatitis of the latter are clearly visible. Specific therapy together with dietary adjustment led to prompt remission of these signs.



Illustration courtesy of Virgil P. W. Sydenstricker, M.D.,  
University of Georgia Medical School, Augusta, Ga.





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S. F. 4. ....	Agreement as to Compensation	F. I. C. 10	Employee's Notice of Injury to Employer
S. F. 5. ....	Final Compensation Settlement Receipt	F. I. C. 11	Election of Employee where a Third Party is Involved
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*\*Medical Record, Aug. 21, 1940*

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## MEDICINE, PUBLIC HEALTH AND LOCAL GOVERNMENT

A. B. McCREARY, M. D.  
Jacksonville

The theory of public health is essentially sound. Flaws in the administration of public health are not indictments of public health, per se, but of political maladministration.

"An incompetent physician endangers the health of the patient whom he attends. The incompetent health officer endangers the health of his entire community".\*

Improvements in public health must begin at the top. The political factors must be eliminated. Far too many political health officers are content simply to mark time, with no initiative nor interest in the work.

It is inconceivable that intelligent, civilized people would not make some attempt to stem the losses from preventable causes. Medical science has given us the means of eradicating many diseases, alleviating the suffering from many others, and lowering the death rates incident to practically all of the infectious diseases as well as of many other pathologic conditions.

Public health was born of necessity; man's efforts to fight plague, yellow fever and many of the epidemic diseases which decimated the population, with the resultant losses to commerce as well, were the forerunners of modern public health organization. In a democracy the support of public opinion is essential and such support cannot be had without educating the public to the benefits to be derived. No health program can be advanced beyond the understanding of the public with any degree of permanency. Health education is the most important function of any health department.

With reference to educating the lay public Dr. Carey, former president of the American Medical Association, said: "It behooves us as a profession to reorganize the human attitude and aptitudes and assume that leadership in

all matters relating to medicine, which is our natural sphere. Our assumption is based upon our education, training and desire to serve." Dr. Carey laments the fact that at present the profession can be criticized for failure to carry to the people the knowledge it possesses, though this failure is due to certain inhibitions based on the belief that the public would misinterpret any unusual effort on the part of the profession as a design for unethical publicity.

To some extent the idea expressed by Dr. Carey is being carried out through efforts of the Florida Medical Association, the State Board of Health and other groups in having a survey made of health conditions in the state of Florida. The permanent organization of the State-Wide Public Health Committee, under the leadership of Mr. John P. Ingle, has been of inestimable value to the State of Florida in disseminating to the people a knowledge of the existing conditions and the recognized methods of correction. This Committee is composed of outstanding professional and lay persons who have as their goal healthier conditions for Florida.

The county unit plan supervised by the State Board of Health and approved by the United States Public Health Service has been recognized for some time by medical and public health authorities as being the most modern means of offering health protection to a community. Regardless of the setup for health protection in any community, it is an arm of local government and as such may suffer due to undesirable political factors in the local government.

The most important function of a State Board of Health is the organization and supervision of adequate local health service. The county health unit as applied to Alabama, Mississippi and our own state of Florida, has proved efficient and economical.

There is no line of demarcation between the problems of urban and rural health, as the problems encountered in the rural community will certainly be brought to the city and vice versa. Even the evils of an unsavory city political organization may extend to the farthest rural reaches of the county.

It is not contended that all health units are

Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held in Tampa, April 29, 30, and May 1, 1940.

Florida State Health Officer.

\*Report of the New York State Health Commission, 1932.

above reproach nor that they cannot be greatly improved, but it is insisted that unfavorable conditions are usually due to lack of interest on the part of the public as well as the medical profession. Criticism lacking constructive thought will not correct existing evils but will add to the burden and embarrassment already borne by those attempting to build up an efficient unit. There should be no more difference between the type of health service rendered to the rural and urban community than there should be in the type of medical service. The federal government and the State Board of Health by the establishment of a health unit in any community are making an agreement with the local governing body that they are allocating state and federal funds for the creation of recognized modern full-time public health machinery for the promulgation of accepted policies of public health procedure. The Board is not interested in playing local politics with reference to personnel. It only hopes to educate the public to demand a qualified man in every instance rather than simply a resident who may or may not be qualified.

There are eighteen counties in Florida which have health units cooperating with the State Board of Health and the United States Public Health Service, and approximately twelve counties have already signed up to start operations by October 1, 1940. If one unit shows up badly by comparison with another such unit it will usually be observed that all the agencies of that particular local government will compare just as badly with their counterpart in the second organization. So if your health unit does not produce as it should, it will be no fault of the State Board of Health nor of the United States Public Health Service. All they can say is that personnel and program must meet certain requirements, or state and federal funds will be withdrawn. They do not feel that any conscientious group or individual could, should or would object to such a contract.

In one city which was notoriously operated under the "boss rule", which is usually considered the most vicious type of corrupt government, this question was once asked of a prominent newspaper man who was thoroughly acquainted with conditions generally, "How does the city health department compare with other branches of the city government?"—it

being a matter of common knowledge that the health department was by no means as efficient as it should or could have been under more favorable governmental conditions. The newspaper man answered by saying that, by comparison to the other branches of the city government, the health department was indeed a paragon of perfection. Possibly this was one of the greatest compliments that could have been paid to any health department, regardless of the fact that this department showed rates from diseases and death which were entirely out of line with proved experience in other places. Such conditions are often responsible for the attitude of opposition on the part of many conscientious physicians towards anything sponsored, controlled or in any way related to politics.

The state and federal governments are simply helping to carry the local burden and demanding that the personnel meet minimal qualifications; but they cannot assume responsibility for factors which may not be within their province and which may be due to local political chicanery over which they have no control. The health units are local units for local communities and the State Board of Health is simply in an advisory capacity. Experience has shown that the best results are obtained by the units even under the most trying circumstances. They must make reports to the State Board of Health and to the United States Public Health Service, citing their activities and their accomplishments as well as giving a full accounting of their expenditures.

When the local station master is postmaster, part-time physician and part-time health officer—which naturally presupposes him a part-time practitioner of medicine—one often wonders if the mortality record of his personal practice is as high as his community record as part-time health officer. For instances of real sickness the Board advises a full-time doctor—one who does not divide his thoughts between his patients and his other interests—just as it advises a full-time health officer to look after the communities.

A clear-cut distinction can be drawn between part-time physicians and part-time health directors. Part-time physicians are doing curative medicine which is in line with the principles of practice; part-time health officers



are usually jacks-of-all trades who are seldom in line with anything other than the local political hookup. Such quack services are no longer approved and are being regarded just as quackery is in all other fields.

President Roosevelt has said:

Other than the indifference of local governments—there is no reason for tuberculosis to be twice as prevalent in some sections as in others; for deaths and illness from diphtheria to continue to occur when some municipalities have been able to stamp it out entirely; for twice as many babies to die each year in some cities as in those where a modern health program is in force; for the rate of decline of many preventable diseases and certain death rates to be higher in rural communities with no organized health service, than in urban communities where health service is available, or for those citizens of the lower economic rank to suffer a higher death rate from practically all causes.

Ten years ago Dr. McCormick, Health Officer of Kentucky, stated:

An effective county health organization is the basis of the future successful health program. It is a matter of utmost importance that effective research be carried on in all problems affecting the health of the rural population.

He further said that it is essential to remember that the local organization will be useful only in so far as it is able to secure the confidence of the people and instruct them in the improved methods.

The standardization of health units according to modern methods means recognition of the work throughout the state and nation just as the efficiency of hospitals is recognized by the Council on Medical Education and Hospitals of the American Medical Association. The approval of this Council means that the hospital has met the requirements for equipment as well as for efficiency and competency of personnel.

Mistakes are made in hospitals and mistakes are made in health departments; the eternal vigilance of the thinking people and the medical profession is the price of the efficiency and competency of both.

Physicians who practice in the rural communities must pass the examination of the same State Board which gives a license to the specialist in the cities. There is this minimal standard which must be met by physicians regardless of where they practice. There is no reason why the city and the rural community should not be entitled to the same type of adequate and effective health protection.

It is perfectly natural that the thinking taxpayer should look askance at the appropriating body that year after year continues to expend money for haphazard health services by part-

time directors, when full-time accredited service is available. The thinking person naturally brings up the question: why does this political body pay a higher sum of money than necessary for an inferior service that does not have state and national recognition, when the state and federal governments will allocate funds for the establishment of full-time, fully approved and accredited health service?

Dr. Irvin Abell, president of the American Medical Association, speaking before the Interdepartmental Committee to Coordinate Health and Welfare Conditions held in Washington, D. C., July, 1938, said:

There can be no acceptance by the medical profession of any system of medical care which is based on the idea that the well-to-do shall receive one quality of medical care while the farmer, the laborer and the white collar worker are to be placated with a wider distribution of an inferior service. The medical profession agrees with all other agencies on the importance of the following objectives: the provision of good medical care for all the people; the development of appropriate measures to combat specific health problems, and a continuous orderly improvement of the distribution of medical services and hospital facilities both by geographic and economic divisions. . . . .

If this conference could develop a plan under medical control which would continually have the support, advice and approval of the physicians of the county for a better distribution of physicians, so as to provide for medical care of the indigent and near-indigent people where it is found necessary under plans locally approved, state by state, it would have accomplished a great deal not only for scientific medicine but also for the preservation of the lives and liberties, the happiness and effectiveness of our people.

Dr. William J. Kerr, president of the American College of Physicians, speaking before the same conference said:

It takes many years to make a good doctor—a great many years. It takes a great many years to make a fine social worker or an outstanding nurse. It is going to take us some time longer to develop the administrators and workers who are going to operate in an efficient manner any plan which may be developed. Before we are overwhelmed with a complicated system of national scope, we should undertake a program of training administrators and others who will make the system work.

Dr. E. S. Godfrey, Jr., Commissioner of Health of the State of New York, stated at this Conference:

I wish to emphasize the necessity of having a basic health organization before you attempt to build up these special services. They should be integrated with the regular public health services of the state, of the district, of the county and of the city. The best purpose of special appropriations is to give the finishing blow to those diseases whose declining morbidity and mortality indicate that our methods are effective and need only to be more widely applied. We can eliminate syphilis, tuberculosis, and malaria as major enemies of the public health. Finally, it would make for simplification and for better leadership if we faced the matter squarely and say, "We are going to have a national department of health whether or not you reorganize the rest of the government".

This is exactly the attitude taken by the House of Delegates of the American Medical



Association at one of their meetings during the latter part of 1938 in which they stated that they and they alone were the spokesmen of the Medical Association and recommended that a physician be placed as Secretary of Health in the President's Cabinet. The report of the American Medical Association Reference Committee on Consideration of the National Health Program contained the following:

The Committee advocates recognition of the principles that the complete medical care of the indigent is a responsibility of the community, medical and allied professions, and that such care should be organized by local governmental units and supported by tax funds.

Since the indigent now constitute a large group in the population, your Committee recognizes that the necessity for state aid for medical care may arise in poor communities and the federal government may need to provide funds when the state is unable to meet these emergencies.

The Committee is not willing to foster any system of compulsory health insurance, but is convinced that voluntary indemnity insurance may assist many income groups to finance their sickness costs without subsidy.

It is thought by many people that the physician is being exploited by unscrupulous agencies and organizations purely for greedy purposes and that altogether too frequently public health is coerced by political factors into an unwilling position of compromise. There are, however, more physicians than there are health workers and there are far more people than there are either. Therefore, it behooves us to strive toward the end which will eliminate the unwelcome factors and produce an organization which will work harmoniously for the common good.

The Brookings Institute of Government Research, located in the city of Washington and supported by philanthropy, has made many interesting surveys of state governments. None are more interesting than the survey of health departments and conditions in Alabama and Mississippi.

The Brookings' report of Alabama stated under the caption, "Results":

The development to a comparatively high degree of efficient and effective economical health service (state and local) in Alabama is attributable in a large part to the constructive and to the sustaining influence of the

organized medical profession of the state, and to the administrative ability, far-sightedness and statesmanship of the men who in truly remarkable succession during the last fifty years have been chosen to occupy the position of State Health Officer.

Dr. Means, president of the American College of Physicians, in his address to that body, charged that the policy of the House of Delegates of the American Medical Association was partisan standpatism, that the electorate was apathetic and inarticulate, because it had no issues nor platform. He pointed out that this electorate is made up of delegates from the state associations, men who are busy with their practice and who, too frequently, do not have time to give matters of health administration the thought that they deserve. He said it is the feeling of the great majority of people that not only their interests but those of the public as well are being looked after by the full-time staff at Association headquarters for the national organization. Apparently those present at this meeting were jolted into a realization that probably health matters could have all been looked after a little better than they had been in the past.

Many people feel that the American Public Health Association as well as its organs should remember that it is presumed to be a professional organization for the betterment of humanity and not simply a trade organization. In fact, there are very few, if any, human endeavors that cannot be bettered. It is our duty to improve a basically sound institution rather than to attempt to destroy it.

Medicine needs the health organization; public health needs the medical profession; and the public needs both! The physician can aid in the strengthening of better health machinery. We still contend, like Robert Louis Stevenson,

There are men and classes of men that stand above the common herd: the soldier, the sailor and the shepherd not infrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization.

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## ACUTE CHOLECYSTITIS

JULIUS C. DAVIS, M. D.  
Quincy

The voluminous and often warmly controversial literature on disease of the gallbladder is evidence that we have not yet succeeded in placing its management on a completely satisfactory basis. Owing to its tendency to become chronic and to recur, gallbladder disease has a high morbidity. There is no group of patients more grateful for relief afforded than those with cholecystitis and in no branch of surgery are more spectacular results obtained than in operative treatment of this condition. Nevertheless, no condition is more often neglected and temporized with, to the detriment of the patient. For this, the persistently high mortality rate of cholecystectomy must bear its share of blame. We are, in fact, caught in a vicious circle in this regard. Because of the high mortality rate of operation, we find it difficult to make up our minds to intervene, and because we delay, the mortality rate stays high. With this idea in view I shall present in briefest outline the natural history of cholecystitis, its origins, its relationships, and its effects if allowed to take its course unhindered. From this study, illustrated by mortality analyses in recent literature and by my own experience, I shall try to draw some deductions to serve as guides in the question of treatment.

### ETIOLOGY

In my experience no age or race immunity to cholecystitis exists. It is a generally conceded fact that disease of the biliary tract may be caused by obstruction or by infection. The obstructive mechanism may be calculous or embolic or thrombotic. Infection of the gallbladder may be hematogenous, lymphogenous, by contact, or from partial occlusion of the route of the return venous blood which, in turn, provokes infection of the gallbladder wall. Experimental cultures from the surgically removed gallbladder show that ten times as many infections localize in the gallbladder as elsewhere. We frequently find in alliance a high appendix or a gastric or duodenal ulcer. According to Moynihan and Deaver, appendiceal infection is the largest single contributing factor in infection of the gallbladder. Deaver recalled that the

duodenum and the pancreas, in that order, rank next after the appendix as sources of infection of the gallbladder. Further, he alleged that he had never seen a diseased gallbladder or an ulcerated duodenum without an associated diseased appendix, unless the appendix had been previously removed. Acute cholecystitis may be secondary to infection elsewhere in the biliary tract. It is not improbable that a cholecystitis is a part of a disseminated infection in which the liver is the primary focus, and the gallbladder, adjacent glands, bile ducts and pancreas are more or less involved. A hepatitis from bacteria or poison carried to the liver for detoxification is no doubt present in a considerable number of persons.

### DIAGNOSIS

The symptoms depend on whether the attack is obstructive or nonobstructive. Obstruction from stone produces a more agonizing pain than is found in noncalculous cholecystitis and is generally caused by a stone in the cystic duct; however, edema of the duct may result in complete obstruction, and in this event the symptoms are not unlike those of calculus. The main diagnostic points have been well summarized in a recent article by Hancock:

Rather sudden onset of pain in the right upper quadrant. This pain is usually severe, fairly well localized, dull and constant rather than cramplike, and accompanied by definite tenderness and abdominal rigidity. The fever is not uniformly high, often not in keeping with the severity of other symptoms. The pulse conforms fairly well with the temperature. There is practically always some nausea and vomiting. Chills may or may not occur. The majority of cases show no jaundice.

In my own experience, nausea is an inconstant symptom. Pain and muscular rigidity are present in all cases and there is also tenderness under the right costal margin. There is a moderate leukocytosis. The patient's history shows a previous dyspepsia and a dislike for certain foods. The van den Bergh reaction, Quick hippuric acid test and Meltzer-Lyon test are valuable in the diagnosis and also, to some extent, as guides in the postoperative management. The Graham-Cole test is of value in probably 75 per cent of the cases. Cholecystograms are useful adjuncts but not infallible guides. In the differential diagnosis the conditions most likely to prove confusing are perforated gastric ulcer, appendicitis, subphrenic abscess, pneumonia, coronary disease, and pancreatic disease.

### PATHOLOGIC CHANGES

The pathology is best discussed under three

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phases. The first phase is that of hyperemia and edema, which are the natural consequences of obstruction. With increasing edema the cystic duct may be occluded and the contents of the gallbladder trapped, with resultant hydrops or empyema or gangrene of the viscus. In the event that the edema subsides before a catastrophe occurs, relief will be experienced as the obstruction is removed and the acute phase passes into the chronic phase. If the first phase does not subside, the second phase, or phase of infection, develops, leading to suppuration and perforation. The third phase, that of gangrene or empyema of the gallbladder, may follow the first two stages without any period of remission. In any one of the above stages perforation may occur. The perforation may be into the liver or into the peritoneal cavity, and a resultant peritonitis may be either localized or general.

#### COMPLICATIONS AND SEQUELAE

Hepatitis, though frequently the primary disorder, may also develop secondarily after the first acute attack or after recurrent attacks of cholecystitis. Following recurrent attacks of acute gallbladder disease we often find a sclerotic cirrhosis of the liver. Repeated attacks are responsible for increasing impairment of liver function; the extractive power of the mucosa and the secretory functions are limited. The powers of detoxification and of concentration are reduced. The metabolism is definitely interfered with. Stones of pure cholesterol are frequently found, which are known as metabolic stones. The pancreas may be involved.

#### MORTALITY FROM CHOLECYSTECTOMY

Graham reported a mortality rate of 3.75 per cent in a series of 262 cholecystectomies in which no drain was used. He stated, further, that patients operated on in the first 48 hours gave a mortality rate of 3.59 per cent and that the mortality rate remained only 5.13 per cent when the operation was done at any time within the first five days, whereas it rose to over 20 per cent when operation was delayed until after the fifth day. He expressed the belief that all patients seen within five days from onset should be operated on immediately.

Koster has reported 341 cholecystectomies with a mortality rate of 9.4 per cent. In 111 instances the gallbladder was gangrenous, and in this group the mortality rate was 14.4 per cent.

Thirty-three cases of acute perforation were encountered. In these cases the mortality rate was 27.27 per cent. In the 153 cases in which early operation was performed before perforation or gangrene had occurred, the mortality rate was only 1.3 per cent. Let us suppose that all of Koster's patients had been treated medically instead of surgically. On the basis of the certain deaths of the 144 patients who had gangrene or perforation, we would be safe in stating that the mortality rate under medical treatment would have been at least 50 per cent.

#### ANALYSIS OF MY SERIES\*

I have analyzed in some detail the 43 cases diagnosed as acute cholecystitis which I have treated in the past ten years. Thirty-four of these patients were white and 9 were colored. Nine were males and 34 were females. Of the 34 white patients, 6 were males and 28 were females. Of the 9 colored patients, 3 were males and 6 were females. In age the patients ranged from 14 years to 83 years, as shown in the following table:

Age	Cases	%
14-19	4	9
20-29	9	21
30-39	6	14
40-49	10	23
50-59	6	14
60-69	6	14
70-79	0	0
80-83	2	5
14-83	43	100

Seventeen of the 43 patients had stone in the gallbladder; one patient had stone in the common duct and one had stone in the hepatic duct. The disease of the gallbladder was complicated by duodenal ulcer in 4 cases, by carcinoma of the stomach in 1 case and by carcinoma of the colon in 1 case. Many of the patients had had recurrent attacks and in 2 the disease had already gone on to gangrene of the gallbladder and in 3 others to perforation, in 1 into the peritoneal cavity and in 2 into the liver with resultant liver abscess. Two patients had cirrhosis of the liver and in neither was there a stone in the biliary tract, but each had had repeated attacks of acute cholecystitis over a period of years. These attacks were undoubtedly responsible for the chronic hepatitis and the existing cirrhosis.

\*Since this article was prepared, 17 additional patients have been operated on, bringing the total to 60. There was one additional death due to liver shock with generalized carcinomatosis as a complication.



In all the cases of this series cholecystectomy was performed. Other surgery was done in all cases except five. In one case gastrectomy was performed. In another case, in a 14 year old girl, a cystic spleen weighing 6 pounds was removed. In a third, in which an intestinal obstruction and a 12 pound fibroid were present, the fibroid was removed as well as the gallbladder and appendix. Appendectomy was done in 28 cases. In 10 cases the appendix had been removed previously, and in 4 cases it was not looked for because of the advanced age of the patients. I closed the wounds without drainage unless the operative field was contaminated. In practically all of the cases of this series I used spinal anesthesia, 200 mg. of novocain in 6 to 8 cc. of spinal fluid, introduced anywhere from the second to the fourth lumbar interspace.

In this series of 43 cholecystectomies in acute cholecystitis there was one death attributable to the operation. This death occurred in a Negro woman, aged 25, who was in her first attack. She had been ill for about ten days when she was operated on. The gallbladder was edematous and the cystic duct was occluded, but there were no stones. There were three deaths not attributable to the operation. An 83 year old man died of pneumonia on the fourteenth post-operative day and within twelve hours of the onset of the pneumonia. Two patients with cirrhosis of the liver and ascites, on whom cholecystectomy with omentopexy was done, died six and eight months, respectively, after the operation, and a patient with carcinoma of the colon died three weeks after cholecystectomy plus colostomy.

With one exception, all patients who were operated on during the first attack made uneventful recoveries.

#### ADVANTAGES OF EARLY OPERATION IN ACUTE CHOLECYSTITIS

It is not my intention to advocate surgery in all cases of acute cholecystitis. In first attacks medical treatment should no doubt be tried first. But there is definite risk in waiting for response to medical treatment and the period of expectancy should not be prolonged. When we analyze the mortality from cholecystectomy, we see that it is the cases that come late to operation that are responsible for the high rate, whereas there is relative safety in early operation. Thus, in Graham's series, the mortality rate for

operations performed after the fifth day is four times as great as for those done during the first five days and six times as great as for those performed in the first forty-eight hours.

The length of time one may prudently wait depends in part on the severity of the case. If the course is mild it is safe to delay longer than if the disease appears to be making rapid headway, but in my opinion it is never advisable to temporize longer than seventy-two hours before giving serious consideration to surgery. If the patient is operated on within the first twenty-four hours, the risk to life should not be greater than in operation for acute appendicitis. When the operation is performed by a competent surgeon, we should have a mortality rate of 1 per cent or less.

I am aware that certain objections can be raised against early cholecystectomy in acute cholecystitis. The proponents of medical treatment will remind us of the various functions of the gallbladder and may say that after the acute attack the gallbladder functions normally by the Graham-Cole test. But this return to normal functioning does not take place in the majority of cases. Naturally, we would not like to sacrifice so valuable an organ as the gallbladder so long as it was functioning normally. Neither should we remove tonsils or an appendix while they are functioning normally, but once they harbor infection we are carrying around an unexploded bomb—and it is the same with the gallbladder. We have no way of determining beforehand which gallbladders will become gangrenous or will perforate.

It is true, too, that in the past thirty years I have treated many patients with cholecystitis without surgery who have remained well after the first attack. But many others who refused operation have had recurrent attacks and have been chronic sufferers from indigestion during the periods of remission. In the subsiding of the acute attack, adhesions form and fibrosis develops which make a future operation a much more difficult matter than the easy shelling out that is possible in the incipency of the disease. With early cholecystectomy we eliminate chronicity and sequelae, the possibility of gangrene and perforation.

For the present and for some time to come we shall be called upon to care for cases of chronic cholecystitis with more or less extensive liver

damage. In such cases removal of the gallbladder cannot be expected regularly to effect a cure, but statistics show that in most of them the symptoms are greatly relieved and in only a small number is no relief obtained by cholecystectomy. To understand the favorable effect of removal of an infected gallbladder on an infected and damaged liver, we must recall two facts. The first is the remarkable capacity of hepatic tissue to reproduce itself; half of the liver can be removed experimentally and be entirely reproduced in a few weeks' time. No other organ has this power of reproduction of its parenchyma. The second important fact to remember in this connection is that infection of the gallbladder wall does not tend toward spontaneous cure, but persists as a source of continuous superinfection of the liver, pancreas or other organs which may become involved during the chronic course of the gallbladder disease. Sanders said:

An infected gallbladder is thus a particularly dangerous neighbor to organs which are waging a battle against the same infection. It is the keystone of the arch which maintains the disease.

With the gallbladder removed, the liver is given a chance to profit from its inherent capacity to replace its own damaged tissues.

Patients with cholecystitis should be properly prepared for operation. Their glycogen reserve is deficient and they are readily dehydrated. On the afternoon before operation they should be given 1000 cc. of 10 per cent dextrose solution intravenously with vitamin K and bile salts. On the following morning during operation or immediately thereafter, another 1000 cc. of the dextrose solution should be administered in the same manner and, if needed, a small blood transfusion may be advantageously given.

#### CONCLUSIONS

1. Acute cholecystitis has a high mortality when treated by medical measures alone.
2. The high mortality rate of cholecystectomy depends on the inclusion in the series of large numbers of late cases, especially cases which have already progressed to gangrene or perforation.
3. When cholecystectomy is done within the first twenty-four hours, the operative mortality rate should not be higher than in acute appendicitis.
4. In the first attack, medical treatment should be tried, but if improvement does not

occur in from forty-eight to seventy-two hours, operation should be seriously considered.

5. In subsequent acute attacks, there should be no temporizing with medical measures but operation should be done as soon as the patient can be hospitalized and properly prepared by administration of dextrose and fluids.

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*Jefferson and Adams Sts.*

#### SIXTH ANNUAL A. M. A. RADIO SERIES

"Doctors at Work," the sixth annual series of dramatized radio programs to be presented by the American Medical Association and the National Broadcasting Company, was inaugurated Wednesday evening, Nov. 13, *The Journal* of the A. M. A. announces.

The program is scheduled for 10:30 p. m. eastern standard time (9:30 central, 8:30 mountain, 7:30 Pacific time) over the Blue network, other NBC stations and Canadian stations.



## TUMORS OF THE BRAIN IN CHILDREN

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It is still not commonly realized that tumors of the brain are among the commoner scourges of mankind. There is good evidence that from 1 to 2 per cent of the population will suffer from such a tumor at some age. If the average length of life is estimated liberally at sixty years, then it may be computed that in the state of Florida with a population of 1,500,000 there must occur between 250 and 500 cases of brain tumor a year. As not over 75 patients are operated on for brain tumor in any one year in this state and as even some of those are from southern Georgia it is obvious that many cases are being overlooked. If a brain tumor were the hopeless condition that it was once considered to be, even this oversight might be of no great importance. But this is not true. Van Wagenen<sup>1</sup> and Cairns<sup>2</sup> have demonstrated that the outlook in cases of brain tumor is by no means so dark as was once thought. Cairns found that of 157 patients operated on during one year in Dr. Cushing's clinic, 40 per cent were alive seven to nine years later and 23.5 per cent were living "useful" lives. We have been much intrigued by a recent publication by Dr. P. G. Denker of the Equitable Life Assurance Society; this company, the author stated, has found that in view of the progress made in neurologic surgery during the past twenty-five years not a few persons who have been operated on for brain tumor are under certain circumstances suitable risks for a life insurance company.

The frequency of brain tumors among children is even less appreciated than that among adults, and the outlook is often regarded as even more hopeless<sup>3</sup>. In a recent study of 100 consecutive cases of verified tumor of the brain in children, 15 years of age or younger, Bailey Buchanan and Bucy<sup>4</sup> demonstrated that such tumors are by no means rare or always hopeless in children.

Tumors of the brain tend to occur most frequently during three separate age periods. The

first is between 7 and 8 years of age, the second from about 30 to 32 and the third between 45 and 47 years<sup>5</sup>. The types of tumor are different in each age group. The malignant glioma of the cerebrum, the glioblastoma multiforme, is the more common in the oldest group; the meningioma and pituitary adenoma usually occur in patients of from 30 to 35 years of age. Entirely different tumors are found in children, and although benign meningiomas, pituitary adenomas and cerebral gliomas may occur they are distinctly rare. The most common tumors at this age are cerebellar astrocytomas; malignant tumors (medulloblastomas and meningeal sarcomas) of the posterior midline of the cerebellum; ependymomas of the fourth ventricle; gliomas (often spongioblastomas) of the pons, and a variety of tumors in and about the third ventricle (craniopharyngiomas, spongioblastomas and other gliomas of the optic chiasm and hypothalamus and pineal tumors). It is obvious that the majority of these tumors lie in the cerebellar fossa. Of our 100 cases, in 66 the lesion was so located. Of the 34 tumors located above the tentorium, the majority lay in and about the third ventricle.

### PONTINE GLIOMAS

Gliomas of the brain stem, usually involving the pons primarily, are far more prevalent than has been realized. In our series we were able to verify 12 tumors of this type, but since in instances of such tumors operation is rarely beneficial, at least 8 cases in which we were confident of a correct diagnosis passed through our hands without verification at operation or necropsy. It would thus appear that these tumors form some 15 to 20 per cent of all intracranial tumors which occur in children. In the past these lesions have rarely been recognized clinically, but have usually been erroneously diagnosed as encephalitis. They do not give rise to increased intracranial tension, except very late in their course, and consequently those symptoms which are common to other intracranial tumors—headache, enlargement of the head, failing vision and choking of the optic disks—are not prominent here. Vomiting, however, frequently occurs, but is the result of the direct involvement of the medullary centers rather than of intracranial hypertension. The other common manifestations of these tumors are: first, involvement of the various cranial nerves; second, paralyses from destruction of

From the Division of Neurology and Neurosurgery of the University of Chicago.

Read before the Hillsborough County Medical Society, Tampa, March 13, 1940.



the pyramidal tracts; and third, cerebellar dysfunction.

The cranial nerves most frequently involved are the sixth nerves supplying the external rectus muscles of the eyes; thus, crossing of the eyes is one of the earliest and most common complaints. Facial paralysis and paralysis of the muscles of mastication may occur. Paralysis of the musculature of the pharynx and larynx produces alterations in the voice and difficulty in swallowing with choking and the regurgitation of fluids through the nose. Involvement of the acoustic and vestibular nerves is uncommon. Involvement of the long fiber tracts in the brain stem is usually manifested only by paralysis, increase in the tendon reflexes and Babinski's sign. The paralysis may involve any one or more of the four extremities at the onset but with the progress of the disease a quadriplegia is approached. Sensory changes are rarely found and in only one of the verified cases was any sensory change, a hemihypesthesia, present. Signs of cerebellar dysfunction appear in at least half of the cases and, though usually the result of involvement of the cerebellar peduncles, they are in some instances due to actual invasion of the cerebellum itself. Nystagmus is the rule. Flaccidity (hypotonia) of the extremities, ataxia, and intention tremor are the usual findings in this sphere. The combination of pyramidal and cerebellar involvement in these cases is such that over half of our patients were unable to stand or walk at the time of admission to the hospital.

That this combination of symptoms in patients without increased intracranial tension, who are not infrequently subject to periods of stupor or even coma, should usually result in the diagnosis of encephalitis is perhaps not surprising. As Bailey<sup>6</sup> has pointed out, however, such errors are, in the light of modern knowledge, no longer justifiable. Encephalitis of the brain stem, aside from the occasional cranial nerve palsies which appear as complications of diphtheria, is practically unknown. In almost every recorded case presumed to be an encephalitis of this type, verification of the diagnosis is wholly lacking. Whenever one is confronted by such a syndrome as that outlined above, a pontine glioma is the most likely anomaly and the presence of fever or an increase in the cells of the spinal fluid is not sufficient to alter such a likelihood.

#### INCREASED INTRACRANIAL PRESSURE

The other common intracranial tumors which occur in children usually give rise rather early in their course to the signs and symptoms of intracranial hypertension. Of these symptoms vomiting is one of the earliest and most persistent. At the onset of the disease vomiting occurs most frequently when, or shortly after, the patient arises in the morning. Later it may occur at any time, either with or without any apparent relation to meals. Recurrent attacks of vomiting, particularly if they tend to occur in the early morning and are increasing in frequency, should strongly suggest that the child is a victim of an intracranial tumor. As previously noted, gliomas of the brain stem and other tumors situated near the medulla oblongata may give rise to vomiting as a result of direct compression before any evidence of increased intracranial pressure is present. Headache, in contrast to the vomiting and to related conditions in adults, is often not a prominent symptom for two reasons: first, children are far less prone to complain and less able to make their discomforts known than adults; and second, the cranial sutures separate, and the skull enlarges, providing a spontaneous decompression. This enlargement of the head results in many conditions more or less typical of these cases. Often the head is noticeably enlarged but this is commonly recognized only late in the course of the disease. The veins of the scalp become distended. The separated sutures may be palpated. Percussion of the skull gives rise to a peculiar note, the cracked-pot sound or Macewen's sign, comparable to that elicited from cracked pottery. Roentgenograms of the skull in such cases reveal a separation of the sutures. In instances of the rapidly growing malignant tumors of the cerebellum there are no other roentgenologic findings; but in cases of the more slowly growing benign astrocytomas of the cerebellum, digital or convolutional markings on the inner table of the cranial vault, enlargement of the sella turcica, and erosion of the clinoid processes are common.

Unfortunately, children rarely complain of failure of vision until their sight is almost gone. This occurs late in the course of the disease at a time when the preservation of serviceable vision is usually no longer possible. Even before such a complaint has been voiced, however,

choking of the optic disks can usually be found on ophthalmoscopic examination. In addition to choking of the optic disks and optic atrophy with its attendant blindness, increased intracranial pressure, especially in children, often results in paralysis of one or both external rectus muscles of the eye. Such an internal strabismus, due to a sixth cranial nerve palsy, is of no localizing value in the presence of increased intracranial pressure, but in the absence of such a state it is strongly suggestive of a pontine glioma.

Increased intracranial pressure, particularly when due to a tumor in the cerebellar fossa, may cause herniation of the medulla oblongata and the cerebellar tonsils through the foramen magnum. This fact is important for two reasons. This herniation may cause stiffness of the neck which is not, therefore, to be interpreted as indicative of a meningitis; and it makes lumbar puncture in any patient, with the signs and symptoms of intracranial hypertension a very hazardous procedure. Any neurologist of experience is familiar with cases in which the patient has been killed by a "carefully" performed lumbar puncture, the necropsy disclosing a benign curable lesion. Such unfortunate and unnecessary deaths are unjustifiable and are to be laid at the door of those well meaning but ill-advised persons who preach the safety of a "carefully" made puncture, forgetting that no doctor ever, in his own opinion, performed one "carelessly".

Generalized epileptiform convulsions are a common early manifestation of cerebral tumor in adults' but in children, where cerebellar tumors are far more prevalent, such convulsions due to tumor are less frequently seen, since they occur only as a result of tumors above the tentorium cerebelli. In children convulsions may occur in association with tumors in and about the third ventricle and in such instances they are of value in differentiating between these and cerebellar tumors. They may also occur in connection with the rarer tumors of the cerebral hemispheres. Jacksonian epilepsy, or localized convulsive seizures, due to a cerebral neoplasm are uncommon in children. Although cerebellar tumors do not give rise to epileptiform convulsions, they do at times cause paroxysmal seizures known as cerebellar fits. In these attacks the head is suddenly retracted, all four extremities become rigidly extended

and the patient falls over backward. Frequently consciousness is not lost and there are no clonic convulsive movements. Occasionally the respiration is disturbed, consciousness may be lost and death may occur. It is important, for differential diagnosis, that these cerebellar fits be distinguished from the tonic and clonic epileptiform convulsions of cerebral origin.

#### MALIGNANT TUMORS OF THE CEREBELLUM

Medulloblastomas (malignant gliomas) and sarcomas (malignant connective-tissue tumors) both arise most commonly in the posterior part of the middle of the cerebellum. They produce the same clinical picture, have a similar prognosis and are treated alike; but whereas medulloblastomas occur predominantly in boys from 3 to 6 years of age, the sarcomas, although likewise more common in males, have a wider age distribution and we have encountered several cases in adults.

The onset of the disease in these children is characterized by vomiting, at first in the morning on arising. Headaches, which are usually not a prominent part of the picture, then appear. The child becomes listless and inattentive, and staggers and stumbles as he walks. The head begins to enlarge and he soon outgrows his cap. If the disease is not recognized and treated at this stage, a squint and failure of vision will soon appear. Because the growth of these tumors is relatively rapid, the life history being less than twelve months from onset to fatal termination if no treatment is given, the progression of these symptoms is rapid and the patients usually consult the neurologist or neurosurgeon within a few weeks after the onset. Examination will reveal choking of the optic disks, enlargement of the head, and separation of the cranial sutures, but no distortion of the sella turcica or convolutional atrophy in the roentgenogram. There is commonly some suboccipital tenderness and stiffness of the neck. Little or no true ataxia is seen when the child lies in bed, but there is definite uncertainty of gait due to disturbance of vestibular function and equilibration. The child will walk with his feet wide apart to secure greater stability, and will tend to fall in various directions. All the extremities are hypotonic. Nystagmus, although often present, may be absent and this absence is not significant.

These malignant tumors tend to distribute themselves throughout the cerebrospinal fluid



spaces and thus produce metastases over the surface of the entire central nervous system. In no instance of this type has the tumor ever been entirely removed or the patient cured. Our procedure is to make a cerebellar decompression, take a specimen for biopsy, and give roentgen therapy postoperatively. With this treatment these children usually survive for two to three years, almost never longer than for five years. No other form of treatment is more effective. If we were able, before operation, to make a positive diagnosis of the type of tumor present, we would never operate on one of these patients; but unfortunately such diagnostic accuracy is not possible at present.

#### EPENDYMOMAS OF FOURTH VENTRICLE

Ependymomas of the fourth ventricle are only about one-third as common as the malignant tumors described above. They tend, however, to produce essentially the same symptoms and it is rarely possible to differentiate between the two prior to operation. Although they are relatively benign neoplasms, their origin from the floor and walls of the fourth ventricle and the trauma to the medulla oblongata which is so often unavoidable during their surgical removal, make for a very high operative mortality rate, and a poor prognosis. They are not favorably influenced by roentgen therapy.

#### TUMORS ABOUT THE THIRD VENTRICLE

Tumors in the region of the third ventricle constitute approximately 20 per cent of all intracranial tumors in childhood. In our series 5 per cent were pineal tumors, 5 per cent craniopharyngiomas or suprasellar cysts, and 10 per cent gliomas of the hypothalamus and optic chiasm or of the thalamus itself. The figure for the craniopharyngiomas is, however, misleading, since approximately an equal number was recognized clinically but not operated on for various reasons. Because they were not verified pathologically they were not included in our series.

**PINEAL TUMORS:** All of these tumors in the neighborhood of the third ventricle tend to produce the usual manifestations of intracranial hypertension. In addition the pineal tumors may cause an inability to look upward, an Argyll Robertson pupil or a pupil unresponsive either to light or accommodation, impairment of hearing, or pubertas praecox. In connection with the latter, however, it should be noted that whereas it was formerly believed that pre-

mature hypertrophy of the external genitalia with the development of secondary sexual characteristics indicated disease of the pineal body it is now known that such a condition may appear as a result of other tumors about the third ventricle. Occasionally tumors of the pineal body, particularly the teratomas, will contain areas of calcification which permit a diagnosis from the roentgenograms. Since, however, these signs which are typical of a pineal tumor may all be absent, and since these tumors may give rise to nystagmus, ataxia and tremor as a result of compression of the midbrain they are not infrequently misdiagnosed as cerebellar tumors. Diagnosed or misdiagnosed, practically all efforts at treatment of these lesions have, up to the present, been unsatisfactory.<sup>8,9</sup>

**CRANIOPHARYNGIOMAS OR SUPRASellar CYSTS:** These anomalies likewise present a knotty and, at present, unsolved therapeutic problem. Complete removal of these tumors is almost always impossible, but partial extirpation of the cyst wall and evacuation of the fluid contents often afford relief for years. These tumors, arising from the hypophysis, compressing the hypothalamus and midbrain and frequently the optic chiasm, produce a complex group of symptoms. The hypopituitarism which they produce by compression of the hypophysis is characterized by infantilism. The patient fails to grow and develop normally. He is usually smaller and more delicate than would be expected for his age and in addition the skin may become wrinkled, giving him the appearance of a little old man. The basal metabolic rate is diminished as much as minus 20 to minus 45, and the genitalia are underdeveloped. If, as sometimes occurs, compression of the hypothalamus results in an obesity rather than in the usual hypopituitary slenderness, the patient presents the typical picture of Froehlich's syndrome which, it might be added, is most often the result of a tumor in this location. Other evidences of hypothalamic involvement which may be present are: diabetes insipidus, excessive appetite, hypersomnia, and disturbances of the temperature regulating mechanism. Compression of the cerebral peduncles and other parts of the midbrain causes an increase in tendon reflexes, Babinski's sign and such evidences of cerebellar dysfunction as nystagmus, ataxia, unsteadiness of gait, tremor, hypotonia and slowness of movement. The optic chiasm may



or may not be compressed, but the clearcut bitemporal hemianopia characteristic of the compression of the chiasm by pituitary adenomas is seldom observed in these cases. Choking of the optic disks and failure of vision are the rule when these tumors occur in children; this symptom is not so common when the tumors develop in adults. There is one other symptom which, though occasionally and misleadingly absent, is of more localizing and diagnostic value than all of these other manifestations put together. We refer to the calcification present in these tumors which, in a lateral roentgenogram of the skull, can be seen in and above the anterior end of the sella turcica.

**GLIOMAS OF THE HYPOTHALAMUS AND OPTIC CHIASMS:** These tumors are characterized by less noticeable evidence of increased intracranial pressure than are the pineal tumors and craniopharyngiomas. The symptoms of hypothalamic involvement, hypersomnia, polyuria, polydipsia, polyphagia, adiposity, genital hypoplasia and depression of the basal metabolic rate are the typical manifestations. They are rarely all present together. Invasion of the thalamus, although it often does not give rise to sensory disturbance, frequently produces a severe intention tremor. In our experience such a tremor is rare in instances of cerebellar tumors, unless they are enormous, and should always suggest that the tumor may be above the tentorium. The diagnosis of these tumors is the most difficult and it is in these cases that one must most often resort to ventriculography. There is, however, one association of symptoms which is highly significant. Whenever failing vision develops in a person with the nodules or pigmented patches in his skin of von Recklinghausen's disease (peripheral neurofibromatosis) he probably has a glioma of the optic chiasm; appropriate roentgenograms will often reveal a dilatation of the optic foramina and an undermining of the anterior clinoids of the sella turcica. These tumors present a difficult therapeutic problem, at least at present, and the prognosis is almost always hopeless.

#### CEREBELLAR ASTROCYTOMAS

In the preceding pages we have deliberately presented those common intracranial tumors of children in which, at our present state of ignorance, the outlook is almost hopeless. There remains, however, one common tumor of which that is not true; a tumor which is benign and

sharply circumscribed; a tumor which can be readily removed by a competent neurosurgeon without a high mortality rate (in our clinic, the rate was 5 per cent); a tumor which when removed does not recur and removal of which leaves behind little or no evidence of its previous existence; a tumor, in other words, that can be completely and permanently cured. Is there no dark side to the story of such tumors? Unfortunately, the answer is yes, but the dark side can be completely removed, and its removal rests almost exclusively with the family doctor. These "favorable" tumors, astrocytomas of the cerebellum, grow slowly; their symptoms develop insidiously. To the physician alert to the possibility of their existence, aware of their signs and symptoms which are remarkably constant, and accustomed to the use of the ophthalmoscope, their early recognition presents little difficulty. If, however, such is not the case; if the physician is prone to attribute the early morning vomiting, which gradually increases in frequency and severity, to so-called "psychic" vomiting or to gastrointestinal disturbances, and the progressive headaches to refractive errors, eye strain and sinus disease, valuable time may be lost. As the disease progresses papilledema gives way to optic atrophy and vision fails. Unfortunately, sight once lost as a result of secondary optic atrophy is not regained; all of the surgeon's skill will not improve it one iota. All too often a victim of cerebellar astrocytoma has been saved, only to pass the remainder of an otherwise normal life in a black world. It is for the preservation of the sight and life of these children that we discuss this subject with you. The recognition of the other types of tumors is largely of importance as it bears upon the problem of these cerebellar astrocytomas. The differentiation of these other tumors from the astrocytomas often taxes the diagnostic skill of the most expert practitioner, and even he may fail. Therefore, even if the cards are stacked against you, whenever a brain tumor is suspected in a child, it should be treated as though it were benign and removable until it is definitely proved to be otherwise. Delays may be fatal to either life or vision. The early recognition of no other brain tumor in children is more important than that of cerebellar astrocytoma.

These tumors are not rare. They constitute one-fourth of all the brain tumors of children.

They produce intracranial hypertension with its usual attendant train of symptoms, headache, vomiting and choked disk. One should not be misled if the symptoms fluctuate. Once started they may come and go. They may lie quiescent for days, weeks or occasionally months, only to appear again in a more virulent form. They are frequently precipitated by a blow to the head or by an infectious disease, particularly whooping cough. The head becomes enlarged, the veins of the scalp become distended and roentgenograms of the skull reveal typical changes. Because the manifestations of these tumors usually, though not always, progress more slowly than do those of the malignant cerebellar tumors, the changes revealed by roentgenograms are more pronounced. The sutures are usually separated, the sella turcica is enlarged, the clinoid processes are eroded, and convolutional markings on the inner table of the skull are common. Since these tumors are largely confined to one hemisphere of the cerebellum the signs of cerebellar dysfunction are predominantly unilateral and confined to the extremities on the same side of the body as the tumor. Typically, the head is tipped with the occiput toward that side; nystagmus is present which is coarser and slower toward the side of the tumor; the affected arm and leg are flaccid and can be thrown about in a floppy manner or even into the patient's face without his being able to prevent it. The patient's movements are slow and poorly coordinated; writing, buttoning clothes, and other fine movements become difficult; and the tendon reflexes on that side are diminished. He staggers, usually toward the affected side, and cannot walk in a straight line; the arm on that side does not swing. Although medulloblastomas are not likely to produce this unilateral picture of cerebellar dysfunction in children, astrocytomas of the cerebellum do occasionally occupy the midline and produce the symptoms of the malignant tumors.

At operation the astrocytomas may be solid or cystic but in either case they are usually sharply circumscribed and readily enucleated. In every one of our cases in which the surgeon believed the tumor was completely removed the child is alive and well today, several of them eleven and twelve years after the operation. (The neurosurgical division of our clinic has

only been in existence twelve years). Cushing<sup>10</sup> has reported patients alive twenty and thirty years after such a complete removal. If, however, part of the tumor is known to have been left behind, recurrence is the rule although it may be long delayed. Cushing reported one case in which the interval between the first and second operations was thirteen years and we have one boy still well and working every day in whose case an incomplete operation was performed over ten years ago. In cystic tumors evacuation of the cyst does not suffice; the nodule of tumor, which will be found in some part of the wall, must be removed.

In the foregoing presentation we have intentionally touched upon some tumors lightly and have ignored many of the rarer ones (hemangioma, meningioma, cerebral glioma, chordoblastoma) altogether. We have endeavored to present a working basis for the consideration of these tumors, to show that brain tumors in children are not uncommon and are by no means all hopeless, and to point out that further improvement in the results obtained by the neurosurgeon is in a large measure dependent upon the help and cooperation of the family physician.

#### SUMMARY

The most common tumors of the brain which occur during childhood are the pontine gliomas (15 to 20 per cent), malignant tumors (medulloblastomas and sarcomas) of the posterior midline of the cerebellum (20 per cent), ependymomas of the fourth ventricle (7 per cent), tumors in and around the third ventricle (20 per cent) and astrocytomas of the cerebellum (20 to 25 per cent). Of these, all but the astrocytomas generally present a discouraging therapeutic problem and a bad prognosis. The cerebellar astrocytomas are a bright spot. They are benign, can be removed with a low surgical mortality rate and with the almost complete certainty that if removed they will not recur. The chief problem at this time in regard to these tumors lies with the parents and the family physician. It is important, if these children's lives and vision are to be saved, that the cases be recognized and that the patients be given competent surgical treatment early in the course of the disease.



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## VERTIGO

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Vertigo is a subjective sensation of disturbed equilibrium often accompanied by a slight obscuring of consciousness. It may occur as giddiness, with a momentary loss of one's balance; or as a sense of rotation, as if things were turning around the patient or the patient was turning around them; or as lateropulsion, a feeling of being pushed or pulled to one or other side. All these sensations appear as attacks. They are never constant or continuous. This is Shuster's definition of vertigo and seems to be a satisfactory one.

Our position in space and our proper relationship to things about us are maintained by the coordination in the brain of three main body functions, namely, the labyrinth, the visual sense, and the muscle or tactile sense. Any disturbance in this coordination causes vertigo. Nature can compensate for the loss of but one of these functions. For example, when the muscle sense is cut off by

destruction of the spinal pathways, as in tabes, the individual falls if he closes his eyes (Romberg sign). The blind maintain their equilibrium with the help of their muscle sense and sense of touch, and their labyrinthine apparatus. Likewise a deaf mute who has no vestibular functions, gets along with the other two.

The causes of vertigo may be considered under the following heads: systemic, ocular, aural and intracranial.

Some of the systemic causes are arteriosclerosis, cardiorenal disease, anemia, leukemia, syphilis, gastrointestinal disturbances, focal infections in teeth, tonsils, sinuses, gall-bladder, colon or prostate; errors in diet and endocrine disorders; certain drugs as salicylates, quinine and tobacco. These may act through disturbances in the labyrinthine circulation, such as anemia, hyperemia, hemorrhage, or by toxins acting on the labyrinth. Relief from vertigo has followed correction of these conditions.

In referring to alterations of general blood pressure as a cause of vertigo, Watkyn-Thomas<sup>1</sup> said:

Such changes are frequently a contributory factor, but the possibility of another factor must be remembered. Also, although many patients with high blood pressure have attacks of vertigo, these attacks are not due to the high blood pressure, but to the fact that for the time the pressure is not high enough. Thus, a patient with a high blood pressure may have an attack when the diastolic pressure is suddenly lowered where it is no longer adequate for his needs, when, for instance, he takes a too hot bath or after the action of a violent purgative.

Investigators, particularly Dederding and her associates<sup>2</sup> have concluded from their experiments that faulty water metabolism, by causing a waterlogging of the labyrinth, is an important cause of vertigo. Furstenberg and his co-workers<sup>3</sup>, experimenting along a similar line, claimed to have proved that the waterlogging is caused by the retention of sodium in the system and that the vertigo clears up when the intake of sodium is reduced and large doses of ammonium chloride are given. The latter salt, being acid forming, prevents retention of sodium in the body.

Ocular causes are chiefly those of muscle imbalance causing diplopia. The vertigo will increase when the patient looks in the direction of a paralyzed muscle, and diminish when looking away from a paretic muscle. It will

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disappear when the eyes are closed. Thus in this simple manner we can eliminate other causes of the vertigo. Anything causing diplopia will produce vertigo, even possibly, improperly adjusted glasses.

In considering aural causes of vertigo let us briefly review the mechanism by which these may act. In normal conditions waves of sensation constantly pass from the semicircular canals and the vestibule through the vestibular nerve to the nuclei in the bulb. From here connecting fibres carry some to the cerebral cortex, and others through the principal nuclei of the bulb and Deiters' nucleus through the cerebellum into the motor cells of the anterior horns of the cord. While these sensations continue to flow in an undisturbed normal way in all these directions the result is a sense of equilibrium. But if these waves or impulses are unduly stimulated or retarded at their origin on one side in the vestibule and semicircular canals, this equilibrium is immediately upset and vertigo results.

When the pressure of the fluid in the labyrinth changes, or when the circulation of the blood in the labyrinthine vessels is altered, irritation of the vestibular nerve endings occurs and produces vertigo, if the two sides are affected unequally.

Grove<sup>4</sup> quoted Brunner as saying that "vertigo is primarily characteristic for disease of the labyrinth, of the vestibular nerve and of the labyrinthine tracts in the medulla." It seems clear that vertigo, except the ocular type, is caused either peripherally by conditions connected with the labyrinth itself, or in the central vestibular areas beneath the floor of the fourth ventricle, or by those affecting the pathways which carry impulses from the labyrinth. Also it can be stated that labyrinthine vertigoes, either peripheral or central, are always rotatory. That is, the patient complains either that objects are turning around him or he around them. The essential point is that something turns. These are usually associated with nystagmus of the vestibular type.

Some of the aural conditions causing vertigo may be: foreign bodies or impacted cerumen in the external auditory canal, by pressure transmitted through the drum to the labyrinth; acute or chronic suppurative otitis

media by extension of infection to the labyrinth or the cerebellum; and possibly catarrhal otitis media with eustachian tube blockage, although this is doubted by some observers.

Intracranial tumors located in either the anterior, middle or posterior cranial fossae may cause vertigo, and do so because of a great increase in intracranial pressure. Tumors of the posterior fossa are the most likely to cause vertigo. The increase of intracranial pressure is transmitted through the aqueductus vestibuli to the labyrinthine fluid. If the labyrinth on one side is more irritable than the other, impulses are set up and vertigo results. This generally accepted view that increased intracranial pressure causes the vertigo, in the case of intracranial tumors, may require revision if the investigations of Spiegel and Alexander<sup>5</sup> prove to be correct. After analysis of 192 cases of brain tumors they concluded that vertigo is more frequent in temporal lobe tumors than in tumors in other localities of the brain, also that tumors close to the Sylvian fissure seem to induce vertigo more easily than do tumors elsewhere. From this they also concluded that the temporal lobe has something to do with labyrinthine impulses as well as with cochlear impulses.

As the auditory nerve passes through the pons it divides, the vestibular part passing to the inner side and the acoustic part to the outer side of the restiform body. Lesions in this area might involve the vestibular bundle causing vertigo and nystagmus without affecting the acoustic bundle and its hearing function.

Since most of the vestibular impulses pass through the cerebellum to the muscular system, lesions of that part of the brain are more likely to produce incoordination, vertigo and nystagmus more persistent than vertigo of aural origin. Vertigo may result from head injuries which may last for a long time, and is probably due to concussion. This fact should be borne in mind in dealing with accident cases, as malingering may be suspected. Vestibular tests would give some idea whether the patient has just reason to complain.

Differential diagnosis of the causes of vertigo is by no means easy, and may require the cooperative study of the internist, neurologist,

otologist and perhaps the neurosurgeon. It is well first to rule out the ocular type which is very simply done. The vertigo disappears when the eyes are closed. One may consider that all other types are associated in some way with the labyrinth, or the pathways through which the labyrinthine impulses pass.

Portman<sup>6</sup> pointed out that spasm of a vessel causes anesthesia, and sudden dilatatory pain. The anesthesia of the auditory nerve is deafness, and the equivalent of pain is tinnitus and vertigo.

Blood dyscrasias, vasomotor and endocrine disturbances, focal infections and intestinal disorders must be sought. When these conditions are not found to be the cause, or when symptoms indicate some ear or intracranial involvement, careful vestibular and hearing tests should be made. Ophthalmoscopic examination of the eye grounds may reveal a choked disk indicating intracranial pressure. These tests, especially when co-related with the neurological findings, will usually show whether a tumor, or an abscess, or infection exists and enable it to be localized fairly accurately.

If, in the presence of a suppurating ear, there is a sudden onset of vertigo, with nausea and vomiting associated with deafness, ataxia and nystagmus it is evident there is an actual extension of the infection to the labyrinth. Pronounced vertigo occurring in a case of chronic suppurative otitis media with signs of intracranial invasion may mean that the cerebellum is involved.

The duration of the vertigo may help in making a diagnosis. Generally vertigoes lasting a short time and then disappearing completely are most likely caused by some acute irritation of the labyrinth or of the vestibular nerve. However, if it lasts longer and comes on at intervals for several years there is more apt to be a central brain lesion, or possibly a chronic labyrinthitis.

Vertigo caused by vasomotor disturbances in the central vestibular area is not continuous nor is it severe enough to disable the patient wholly. It comes on for short spells lasting a few minutes after such acts as sitting up quickly or turning over in bed, or bending the head forward suddenly, or going above ground level or by undue exposure to sunlight. On the other hand, vertigo due to infection

of the labyrinth or to exclusion of it by a fracture through the petrous pyramid is violent and persistent. Fortunately, improvement begins in a few days and after about six weeks the vertigo clears up entirely since by that time the other labyrinth has compensated for the loss of its fellow.

Lateropulsion, or the sensation of being pulled or pushed toward one side, is a rarer type of vertigo. It may occur in encephalitis and multiple sclerosis and is not associated with suppurative ear lesions. This type must be differentiated from epilepsy in which there is loss of consciousness, and from hysteria in which there is no loss of consciousness. Also in hysteria the patient may fall to one side but never says he feels pulled or pushed toward one side.

The term "Ménière's disease" with its sudden onset of severe vertigo, nausea and vomiting, associated with unilateral deafness, nystagmus and ataxia in the absence of ear suppuration should be limited to those cases caused by hemorrhage into the labyrinth, as Ménière originally described it. In all other cases of aural vertigo with symptoms simulating Ménière's disease, the term "Ménière's syndrome" is suggested as more fitting. Dandy<sup>7</sup> said that Ménière's disease is really a lesion of the eighth nerve and probably has nothing to do with the inner ear, which he claimed is promptly cured by section of the nerve just the same as tic douloureux is relieved by section of the fifth nerve.

The treatment of vertigo depends, of course, on the cause. General systemic defects, including focal infections, endocrine disorders, vasomotor disturbances, toxic conditions, anemias, reflex causes such as impacted wisdom teeth, etc., if present, should receive suitable treatment. Palliative treatment is rest in bed, a mild course of calomel, exclusion of things likely to stimulate vertigo and employment of sedatives of the bromide or barbitol type. Chloretone possibly has a selective action on the vestibular nerve. It is the basis of most antiseasick remedies, and often gives relief during an attack. Small doses of quinine have been recommended for its depressant effect on the more active labyrinth, but should be used with caution lest it permanently affect the hearing. Any drug which lowers



blood pressure is usually unsuitable. Ephedrine is useful, especially during an attack.

A perilabyrinthitis may require a radical mastoidectomy. Labyrinthitis or cerebellar abscess from extension of an ear infection will require suitable surgical treatment, as will also brain tumors. For Ménière's disease Dandy advocated section of the eighth nerve, but this does not always relieve the vertigo. Others think ablation of the labyrinth more satisfactory and less formidable than eighth nerve section. Fortunately, however, most cases not associated with suppuration in the ears, clear up with the correction of general systemic conditions, habits of living and dietetic irregularities, and the more drastic surgical procedures are rarely required. Watkyn-Thomas<sup>1</sup> considered eustachian tube catheterization, to make sure of its patency and proper functioning, an essential preliminary to any treatment.

In cases where no definite cause for the vertigo can be found, and the attacks persist, the treatment recommended by Furstenberg and his associates<sup>3</sup> should be employed. This consists of a salt-free diet with lessening of the water intake. To prevent sodium from remaining in the system he gives large doses (45 grains), of ammonium chloride three times a day with each meal. It is given for three days and omitted for two days. This can be kept up indefinitely with relief from the vertigo and no untoward effect on the patient.

This short resume is not in any sense intended to be a complete study of vertigo, but if it stimulates a desire for further investigation, or sheds any little light on what is often a perplexing problem, my presentation of it will be justified.

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### THE INFECTED HAND

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An infected hand should, from the start, be considered a major rather than a minor calamity for the person so afflicted, for from it we have at least a temporary disability and a potentially permanent one. In the brief time allotted we shall endeavor to discuss some of the more important points in the consideration of the infected hand.

A brief review of the anatomy of the hand will be given, but because of the need for brevity, some slight inaccuracies may be noted. The palm of the hand, by far its most important feature, is divided into three parts by the palmar fascia with the most important factor being the origin of the oblique and transverse adductors of the thumb. These are deep in the palm with the oblique adductors arising from the os magnum and the base or proximal end of the first and second metacarpals and the transverse adductors arising from the shaft of the second metacarpal. Both are covered by fascia and form the thenar space deep beneath the flexor tendons which course through the palm.

The muscles of the hypothenar space are wrapped in a fascia and between these two areas is the palmar space covered by a very dense fascial layer which completes the separation. Proximally this space is continuous with the flexor tendons from the muscles of the forearm, all of which pass under the annular ligament at the wrist. Distally there are the openings for the flexor tendons, the lumbricales, the blood vessels and nerves to the fingers. The tendon sheaths of the fingers extend into the palm for only a short distance, but it is the proximal ends that are so closely allied to the palmar space.

The dorsum of the hand presents an overlying loose subcutaneous tissue with the extensor tendons beneath, enveloped in a fascial layer which receives the insertion of the lumbrical muscles. The most important notation here is that the palmar lymphatics pass to the dorsum

Read before the Florida Railway Surgeon's Association, Daytona Beach, May 1, 1939.



in order to join the main lymphatics of the hand. This explains the predominance of dorsal swelling which occurs with a palmar infection, this being aided somewhat by the density of the palmar tissue. We wish here to direct attention to the rarity of the occurrence of pus in the back of the hand.

Infections are the natural results of penetrating wounds or superficial lesions of the skin such as "hang nails," lacerations, incisions, punctures, bruises and even bloodborne infections from other focal infections of the body. Hertzler and Chesky<sup>1</sup> stated that there are ten surgeons who can do a hysterectomy to one who knows how to open these deep hand infections and that there is no operation so generally botched as that for the relief of the deep infections of the hand. They pointed out that the need for differentiating between the superficial and the deep infections of the hand is very essential and that early and adequate incision and drainage of the deep infection are imperative. Therefore, they classified the superficial infections of the hand into the pus microbe infections such as the spreading infection of the dorsum, furuncles, localized staphylococcic and streptococcic infections of the skin and paronychia; and the specific infections such as tuberculosis and blastomycosis. The deep infections were divided into diseases of the lymphatics such as lymphangitis and sporotrichosis; infections of the subcutaneous tissues as erysipelas and diffuse cellulitis; infections of the tendon sheath and palmar surfaces as suppurative tenosynovitis, fascial space infection, thenar sheath infection, chronic tenosynovitis, felons with axillary and supracondylar abscesses as frequent complications.

Bailey<sup>2</sup> stated that the treatment of severe infection of the hand is one of the few exceptions where theoretical knowledge is even more important than practical experience and explained that when one is confronted with a serious hand infection, the first thought should be: "Is this a case of lymphangitis, tenosynovitis or fascial space infection?" He believed each to be a clinical entity deserving a precise diagnosis; that a tenosynovitis is usually the result of a lymphangitis and is not likely to occur within the first forty-eight hours following the injury. He classified infections of the hand as lymphangitis, suppurative tenosynovitis, infections of the fascial spaces, and paronychia.

Christopher,<sup>3</sup> in his chapter on *Infections of the Upper Extremity*, discussed erysipelas, chronic staphylococcus and streptococcus infections of the skin, lymphangitis, cellulitis, furunculosis and localized abscess, carbuncles, paronychia or "run around," felon (Whitlow), suppurative tenosynovitis, fascial space infection, epitrochlear lymphadenitis, tuberculous synovitis, tuberculosis of joints, tuberculosis of the phalanges or tuberculous dactylitis, acute osteomyelitis, chronic osteomyelitis and suppurative arthritis.

For the convenience of discussion, we should like to consider those first which are treated by palliative local measures. Erysipelas with its elevation of temperature and pulse rate together with its progressive marginated red edge may be treated with roentgen rays, topical applications, serotherapy and sulfanilamide.

Infections of the skin which are painful, and are associated with burning, smarting and slight swelling, may need debridement of necrotic skin, and subsequently antiseptic dressing or an antiseptic ointment may be used. Lymphangitis with its attendant chills, prostration, sharp elevation of temperature and pulse rate and the familiar tender lymphatics, "red streaks," should be treated by continuous hot wet mildly antiseptic fomentations.

Cellulitis, being a diffuse involvement of the soft tissues by pyogenic organisms, is not limited to the lymphatics and we do not find such a severe toxemia developing. Occasionally diathermy may prevent pus formation but once formed and localized evacuation is the accepted treatment. Diabetes should always be suspected and eliminated as a possibility in any infection or tissue degeneration. The tuberculous infections rarely involve the joints and are best treated by observation and rest with general measures instituted to increase the vitality and resistance of the patient.

Those infections which necessitate incision or excision with drainage are the furuncles, which are circumscribed inflammatory areas quite painful, red and swollen, and the common "collar button" abscess, which usually occurs at the web of the fingers. It is important to drain both pockets.

Carbuncles with the attendant massive cellulitis and multiple pockets of infection should be treated by roentgen ray, local dressings, and

specific therapy if due to diabetes, but should be excised if they are due to degenerative disease.

The paronychia or "run around" is an infection adjacent to the fingernail. It usually originates from faulty manicure methods or infected "hangnails." It is painful, is prone to follow around the nail base, and must be efficiently evacuated at an early stage to control spreading or later the nail base must be elevated and an area of the proximal portion cut away to allow adequate drainage to take place from under the nail.

The felon or "Whitlow" usually involves the distal phalanx and forms in a connective tissue sac including the diaphysis of the bone resulting in excruciating pain, swelling and fever. Adequate incision with removal of any sequestra will hasten the restoration of the digit to normalcy and give relief from a painful affliction.

According to Kanavel,<sup>4</sup> suppurative tenosynovitis has three cardinal symptoms: (1) exquisite tenderness over the course of the sheath and limited to the sheath; (2) flexion of the fingers; (3) exquisite pain on extending the fingers, this pain being most marked at the proximal end of the finger. A frequent error in treatment is delay until the pus has penetrated to some other part or through the sheath before drainage is established. Therefore, the infected sheath should be opened early to prevent this complication. Koch<sup>8</sup> said that the use of through and through drainage, superficial or deep into a flexor tendon, should be avoided because of the danger of tendon necrosis.

Fascial space infections of the palm are: (1) Midpalmar space infections with which the palm loses its concavity because of swelling. Tenderness is evident, and there is swelling of the dorsum. If there is procrastination, the infection may spread up the forearm with alarming rapidity. Adequate incision and drainage is indicated, but through and through palmar dorsal drainage should not be used. (2) The thenar space infections, with tenderness over the space and potential forearm infection, should be incised and drained. (3) The hypo-

thenar space infections are frequently well localized and usually respond to incision and drainage.

Acute osteomyelitis in the hand is rare but may result when a generalized systemic pyemia exists or it may follow an infection which has involved the soft parts. The symptoms are: rapid development of pain, marked tenderness over infected bone with systemic chills, fever and malaise. After a long period of drainage small sequestra are often present at the wound opening, discharging themselves when loosened. Recovery is the usual reward for painstaking and careful treatment. Chronic osteomyelitis is a serious and chronic disability and requires much more discussion than can be made at this time.

Suppurative arthritis sometimes develops with pain, swelling and fever following puncture wounds involving the joints of the hand. Ordinarily, in the uncomplicated cases, this disease will respond to aspiration of the joint cavity. Repeated aspiration when indicated may produce a gradual improvement with eventual recovery.

#### CONCLUSIONS

Essential in the treatment of hand infections are:

1. A detailed history of the original injury.
2. An adequate anatomical knowledge of the normal hand.
3. A painstaking diagnosis as to the type of infection present.
4. The early institution of proper treatment, such as immobilization, hot or cold fomentations, incision and drainage or other necessary measures.
5. Careful observation and meticulous after-care, so that the hand will be a functioning one, are important.

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**MEDICAL OFFICERS NEEDED FOR  
PERMANENT POSITIONS**

The Civil Service Commission announces that enough applications have been received to meet the prospective need for temporary and part-time civilian medical officers in connection with the Army expansion.

The Commission calls attention to the fact, however, that there is an urgent need for medical officers and senior and associate medical officers to fill permanent positions in other agencies. Applications will be received until further notice. The positions pay from \$3,200 to \$4,600 a year. Fourteen specialized branches of medicine are included.

There is also an urgent need to fill junior medical officer positions at \$2,000 a year at St. Elizabeths Hospital, Washington, D. C.

Full information and application forms for these examinations may be obtained at the office of the Secretary, Board of U. S. Civil Service Examiners at any first- or second-class post office, or from the U. S. Civil Service Commission, Washington, D. C., or from any of the Commission's district offices.

**SUPREME COURT RULES OSTEO-  
PATHS MAY BE BARRED FROM  
USE OF HOSPITAL**

A suit of widespread interest and significance was that of D. D. Richardson, osteopath, against the City of Miami, and others, "to restrain the Board of Trustees of the James M. Jackson Memorial Hospital, supported by the taxpayers of the City of Miami, from preventing plaintiff entering hospital and treating a maternity case as an osteopathic physician and surgeon, and from withholding the facilities, equipment, and appliances of the hospital from the patient of the plaintiff." This case was appealed from the Circuit Court of Dade County to the Supreme Court of Florida, where the decision of Circuit Judge Paul D. Barns, dismissing the bill of complaint, was upheld. Excerpts from the opinion of the Supreme Court, taken from the Southern Reporter Advance Sheet of November 14, 1940, are given below:

The theory of the appellant's [Richardson's] case is that he is a licensed osteopath and has fully complied with all the laws of the State of Florida and the charter and ordinances of the City of Miami applicable to and regulating the practice of osteopathy; that the rule of Jackson Memorial Hospital barring and precluding osteopaths from the treatment of cases therein and forbidding osteopaths the same rights and privileges in said hospital as physicians and surgeons graduating from other schools of medicine is not only arbitrary and unreasonable but denies the plaintiff the equal protection of the laws, is discriminatory and the same is unconstitutional and void. ....

It is the contention of the appellees [City of Miami, et al] that the Jackson Memorial Hospital is municipally owned and operated, supported by taxation, and has the charter power to adopt the rule and by-laws challenged on the record, and that the same are reasonable regulations, promoting efficiency and establishing high standards, and the policy of management and regulations do not violate the statutes or the constitution. ....

The expression in the Act that osteopathic physicians and surgeons licensed thereunder shall have the same rights as physicians and surgeons of other schools of medicine with respect to the treatment of cases or "holding of offices in public institutions" cannot be construed to mean that patients of osteopathic physicians can be granted the rights and facilities of municipal hospitals, but the "holding of [public] offices in public institutions" may be construed to mean that osteopathic physicians are legally eligible to hold office in public institutions when appointed or elected. An examination of the title of the Act, as well as the body, considered in its entirety, fails to show a legislative intent to authorize osteopathic physicians and surgeons to practice in or have all the rights and facilities of a municipal hospital extended as a matter of law to their patients. The Act as a whole is applicable to osteopathic medicine; it provides for a course of study and a Board whose duty it is to hold examinations and license those eligible to practice. We are unable to read into the Act the contentions here made on the part of counsel for appellant that osteopathic physicians can practice in and have the right and facilities of a municipal hospital extended to their patients.

Mr. J. W. Watson, Jr., of Miami, counsel for the City of Miami, was given assistance by Marks, Marks, Holt, Gray & Yates of Jacksonville, attorneys for the State Association.

# RECOMMENDATIONS OF DOCTORS FOR BOARD ASSIGNMENTS SELECTIVE SERVICE IN FLORIDA

Lists of doctors on Local Boards, Boards of Appeals and Medical Advisory Boards in the Selective Service System for the State of Florida were submitted by H. P. Baya, State Director of Selective Service, for the Governor, on December 3, 1940:

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**Bay**—No. 1, W. C. Roberts, Panama City.  
**Bradford**—No. 1, M. B. Herlong, Starke.  
**Brevard**—No. 1, I. F. Bean, Melbourne.  
**Broward**—No. 1, George S. McLellan, Pompano.  
No. 2, E. M. Hendricks, Ft. Lauderdale.  
**Calhoun**—No. 1, M. Q. Burns, Blountstown.  
**Charlotte**—No. 1, W. B. Clement, Punta Gorda.  
**Citrus**—No. 1, Claude L. Carter, Inverness.  
**Clay**—No. 1, E. H. Brown, Green Cove Springs.  
**Collier**—No. 1, V. G. Stead, Naples.  
**Columbia**—No. 1, Thomas H. Bates, Lake City.  
**Dade**—No. 1, E. C. Brunner, Miami.  
No. 2, R. N. Burch, Miami. *Associates:* James O. Elam, Miami; L. H. O'Quinn, Hialeah.  
No. 3, Allan Jones, Miami Beach.  
No. 4, W. Duncan Owens, Miami Beach.  
*Associates:* Ralph F. Allen, Miami; George C. Austin, Miami Beach; Hollis F. Garrard, Miami Beach.  
No. 5, W. T. Lanier, Miami.  
No. 6, Robert M. Harris, Miami. *Associate:* Frank R. Morrow, Miami.  
No. 7, John W. Snyder, Miami. *Associates:* J. A. Smith, Homestead; Allen M. Logan, Homestead.  
No. 8, P. B. Welch, Miami.  
No. 9, Willard L. Fitzgerald, Miami.  
No. 10, Herman Boughton, Miami Beach.  
No. 11, Max Dobrin, Miami Beach.  
**DeSoto**—No. 1, Gordon H. McSwain, Arcadia.  
**Dixie**—No. 1, James M. Anderson, Cross City.  
**Duval**—No. 1, Neil Alford, Jacksonville.  
No. 2, H. L. Brillhart, Jacksonville.  
No. 3, Gordon H. Ira, Jacksonville.  
No. 4, L. Sydnor Laffite, Jacksonville.  
No. 5, Clarence R. Wilcox, Jacksonville.  
No. 6, J. D. Pasco, Jacksonville.  
No. 7, Edwin C. Swift, Jacksonville.  
**Escambia**—No. 1, J. I. Turberville, Century.  
No. 2, Mayhew W. Dodson, Pensacola.  
No. 3, G. N. Click, Pensacola.  
**Flagler**—No. 1, Reddin Britt, St. Augustine, J. R. West, Bunnell.  
**Franklin**—No. 1, J. S. Murrow, Apalachicola.  
**Gadsden**—No. 1, William W. Massey, Quincy.  
**Gilchrist**—No. 1, William C. Thomas, Gainesville.  
**Glades**—No. 1, Duncan M. Draughn, Moore Haven.  
**Gulf**—No. 1, J. R. Norton, Port St. Joe.  
**Hamilton**—No. 1, John R. Bruce, Jasper.  
**Hardee**—No. 1, M. C. Kayton, Wauchula.  
**Hendry**—No. 1, C. E. Weaver, LaBelle.  
**Hernando**—No. 1, S. C. Harvard, Brooksville.  
**Highlands**—No. 1, I. W. Chandler, Avon Park.  
**Hillsborough**—No. 1, E. F. Shaver, Tampa.  
No. 2, J. C. Vinson, Tampa.  
No. 3, James S. Grable, Tampa.  
No. 4, John S. Helms, Tampa.  
No. 5, Blackburn W. Lowry, Tampa.  
No. 6, John A. Coleman, Plant City.  
*Associate:* Calvin T. Young, Plant City.

**Holmes**—No. 1, R. H. Segrest, Bonifay.  
**Indian River**—No. 1, J. B. Kollar, Vero Beach.  
*Associate:* G. L. Harrell, Vero Beach.  
**Jackson**—No. 1, N. A. Baltzell, Marianna.  
No. 2, R. N. Joyner, Marianna.  
**Jefferson**—No. 1, John B. Brinson, Monticello.  
**Lafayette**—No. 1, O. F. Green, Mayo.  
**Lake**—No. 1, Sanford C. Colley, Mount Dora.  
*Associate:* L. H. Oetjen, Leesburg.  
**Lee**—No. 1, M. F. Johnson, Fort Myers. *Associates:* Baker Whisman, Fort Myers; Harry L. Allen, Fort Myers.  
**Leon**—No. 1, B. M. Rhodes, Tallahassee.  
**Levy**—No. 1, J. M. Wilks, Williston.  
**Liberty**—No. 1, B. A. Wilkinson, Tallahassee.  
*Associate:* M. Q. Burns, Blountstown.  
**Madison**—No. 1, Eugene D. Thorpe, Madison.  
**Manatee**—No. 1, William F. Bay, Bradenton.  
**Marion**—No. 1, Robert D. Ferguson, Ocala.  
**Martin**—No. 1, J. D. Parker, Stuart.  
**Monroe**—No. 1, Julio J. DePoo, Key West.  
**Nassau**—No. 1, David G. Humphreys, Fernandina.  
**Okaloosa**—No. 1, Rhett E. Enzor, Crestview.  
**Okeechobee**—No. 1, H. D. Clark, Ft. Pierce. *Associate:* L. W. Martin, Sebring.  
**Orange**—No. 1, H. W. Gwynn, Orlando.  
No. 2, R. F. Hotard, Winter Park.  
No. 3, T. E. McBride, Apopka.  
**Osceola**—No. 1, Robert G. Wood, St. Cloud.  
**Palm Beach**—No. 1, W. W. George, West Palm Beach.  
No. 2, Vale D. Stone, West Palm Beach.  
No. 3, W. M. Blair, West Palm Beach.  
No. 4, H. A. Wakefield, West Palm Beach. *Associate:* S. J. Simmons, Belle Glade.  
**Pasco**—No. 1, W. Wardlaw Jones, Dade City.  
**Pinellas**—No. 1, F. F. Kumm, St. Petersburg.  
No. 2, Neil E. Funk, St. Petersburg.  
No. 3, H. E. Winchester, Dunedin.  
**Polk**—No. 1, J. L. Hargrove, Bartow.  
No. 2, Grover C. Freeman, Lakeland.  
No. 3, R. E. Gilbert, Winter Haven.  
**Putnam**—No. 1, Z. Brantley, Grandin.  
**St. Johns**—No. 1, A. C. Walkup, St. Augustine.  
**St. Lucie**—No. 1, R. C. Boothe, Ft. Pierce.  
**Santa Rosa**—No. 1, John C. Holley, Milton.  
**Sarasota**—No. 1, J. E. Harris, Sarasota. *Associate:* W. H. Hoskins, Venice.  
**Seminole**—No. 1, K. R. Bell, Sanford.  
**Sumter**—No. 1, H. S. Cherry, Center Hill.  
**Suwannee**—No. 1, J. M. Price, Live Oak.  
**Taylor**—No. 1, G. H. Warren, Perry.  
**Union**—No. 1, Seebor King, Lake Butler.  
**Volusia**—No. 1, J. Ralston Wells, Daytona Beach.  
No. 2, C. E. Tribble, DeLand.  
**Wakulla**—No. 1, L. L. Dozier, Tallahassee.  
**Walton**—No. 1, A. G. Williams, Lakewood.  
**Washington**—No. 1, George W. Carter, Chipley.

## BOARDS OF APPEALS

**Congressional District No. 1**, William P. Adamson, Tampa.  
**Congressional District No. 2**, Kenneth Morris, Jacksonville.  
**Congressional District No. 3**, Henry E. Palmer, Tallahassee.  
**Congressional District No. 4**, E. H. Adkins, Miami Beach.  
**Congressional District No. 5**, Gilbert S. Osineup, Orlando.



MEDICAL ADVISORY BOARDS  
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*N. M. Marr, Internist	St. Petersburg
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M. R. Winton, Surgeon	Tampa
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## CONGRESSIONAL DISTRICT NO. 2

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W. H. McCullagh, Psychiatrist	Jacksonville
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C. E. Royce, Pathologist	Jacksonville
*L. Y. Dyrenforth, Pathologist	Jacksonville
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*H. B. McEuen, Radiologist	Jacksonville
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*C. P. Cleveland, Dentist	Jacksonville

## CONGRESSIONAL DISTRICT NO. 3

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*Henry E. Palmer, Internist	Tallahassee
J. N. McLane, E. E. N. T.	Pensacola
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C. C. Webb, Orthopedist	Pensacola
*S. G. Kennedy, Orthopedist	Pensacola
J. C. Davis, Surgeon	Quincy
W. D. Rogers, Psychiatrist	Chattahoochee
*J. H. Pound, Psychiatrist	Tallahassee
J. J. McGuire, Pathologist	Pensacola
J. M. Hoffman, Radiologist	Pensacola
Fred O. Conrad, Dentist	Tallahassee
*R. L. McLendon, Dentist	Marianna

## CONGRESSIONAL DISTRICT NO. 4

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C. E. Dunaway, E. E. N. T.	Miami
*O. C. Brown, E. E. N. T.	Ft. Lauderdale
A. H. Weiland, Orthopedist	Coral Gables
*P. J. Manson, Orthopedist	Miami
Joseph S. Stewart, Surgeon	Miami
*Harrison A. Walker, Surgeon	Miami Beach
P. L. Dodge, Psychiatrist	Miami
*C. W. Shackelford, Psychiatrist	West Palm Beach
Iva C. Youmans, Pathologist	Miami
N. T. Pearson, Radiologist	Miami
L. D. Pankey, Dentist	Coral Gables
*Rupert H. Gillespie, Dentist	West Palm Beach

## CONGRESSIONAL DISTRICT NO. 5

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*S. A. Folsom, Internist	Orlando
L. C. Ingram, E. E. N. T.	Orlando
*C. W. Mimms, E. E. N. T.	Ocala
R. H. Walker, Orthopedist	Orlando
*E. L. Scott, Orthopedist	Ocala
J. Rocher Chappell, Surgeon	Orlando
*Herbert E. White, Surgeon	St. Augustine
W. Henry Spiers, Psychiatrist	Orlando
Raymond Howe, Pathologist	Daytona Beach
J. A. Pines, Radiologist	Orlando
*J. N. Moore, Radiologist	Ocala
E. L. Thompson, Dentist	Daytona Beach
*Leland T. Daniel, Dentist	Orlando

\*Associate member

INDUSTRIAL HEALTH CONGRESS  
TO DISCUSS DEFENSE PROBLEMS

"Industrial health is of exceptional interest at this time when national preparedness depends so greatly on industrial production," *The Journal of the American Medical Association* for Nov. 23 says in an editorial discussing the program for the Third Annual Congress on Industrial Health, to be held at the Palmer House, Chicago, Jan. 13 and 14, 1941. It continues:

This will be the third of these meetings sponsored by the Council on Industrial Health of the American Medical Association. They are designed to acquaint the physician and others with the rapidly expanding importance of preventive medicine and surgery applied to industrial organization.

Since every man hour of production is vital at this time, the program of the congress is intended to be as helpful as possible to physicians called on to control those factors which in the past have contributed greatly to the incidence and costs of industrial absenteeism. In the field of trauma the hand and the eye have proved to be particularly vulnerable. Symposiums have therefore been developed to present the best current opinion on the management of these costly forms of industrial disability. Of the occupational diseases, dermatitis has long been recognized as the most troublesome. A series of demonstrations has been planned to include discussion of the criteria for diagnosis of industrial cutaneous disorders as well as accepted methods for the treatment and placement of susceptible employees.

Among nonoccupational diseases the common cold and influenza annually exact an enormous toll through loss of earning capacity and disruption of production schedules. This problem also will be discussed from the point of view of the essential economics, the possibilities of control through air conditioning and the role of the physician in industry and in private practice.

Since many able-bodied men will probably be inducted into military service, industry may need to recruit workers from the physically handicapped and from the aging groups. These developments, of enormous medical and social significance, will be featured at the congress. Assignment of this type of worker into industry with proper consideration of physical ability and mental aptitude will be fully considered.

Concern has been expressed about the availability of trained personnel in industrial health, the subject of an early resolution by the Committee on Medical Preparedness of the American Medical Association. A session will be devoted to determining what shortages exist and the best means for correction. It is hoped that concrete proposals for better training for the industrial nurse, the industrial hygienist, the safety engineer and the physician in industry may grow out of these discussions. A means will also be provided for the interchange of experience and results of recent activity by committees on industrial health in state and county medical societies.

Pre-Convention Meeting  
ORLANDO  
ANGEBILT HOTEL  
JANUARY 19, 1941



## APPLICATIONS TO PRESENT PAPERS AT ANNUAL MEETING—JACKSONVILLE

Members of the State Medical Association who wish to make application for a place on the program of the Sixty-Eighth Annual Meeting to be held in Jacksonville, April 28-30, 1941, should do so prior to January 6, 1941, as no paper will be accepted after that date. The following outline should be adhered to closely:

1. Submit a paper on any subject in which you are particularly interested. (We are anxious to get papers that contain original thought or new ideas in medicine; possibly a paper read before your county medical society.)
2. Name two members whom you desire to serve as discussors.
3. No paper shall occupy more than 15 minutes in its time of delivery.
4. Mail your paper (preferably in full) or a 500-word synopsis of it to Dr. Herbert E. White, Chairman of the Committee on Scientific Work, P. O. Box 1018, Jacksonville, so that it will arrive not later than January 6, 1941. No paper will be accepted after that date.

## BIRTHS, MARRIAGES AND DEATHS

### BIRTHS

Dr. and Mrs. Archie J. Baker of Jacksonville announce the birth of a son, Archie James, Jr., on November 12.

\* \* \*

Dr. and Mrs. Peter A. Drohomier of Daytona Beach announce the birth of a daughter on October 10.

\* \* \*

Dr. and Mrs. John M. Butcher of Sarasota announce the birth of a son on October 15.

\* \* \*

Dr. and Mrs. James B. O'Connor of Chattahoochee announce the birth of a daughter, Ida Margaret, November 30.

\* \* \*

Mr. and Mrs. H. L. Corlew of Tampa announce the birth of a daughter on August 8. Mrs. Corlew is Dr. Edith Mols Corlew.

### MARRIAGES

Dr. Eugene L. Jewett of Orlando and Dr. Ruth S. Hart of Winter Park were married in Alexandria, Virginia, October 12.

\* \* \*

Dr. Robert M. Oliver and Miss Elizabeth Baker Gardner of Miami were married November 14.

### DEATHS

Dr. E. J. Melville of St. Petersburg died on November 28.

\* \* \*

Dr. N. A. Baltzell of Marianna died suddenly Sunday morning, December 8. Dr. Baltzell, who was president of the State Board of Health, was in Jacksonville to attend a meeting of the Board, but died in a local hotel shortly before the time of the meeting.

\* \* \*

Dr. M. M. Hannum of Eustis died suddenly on December 9 in Orlando.

## STATE NEWS ITEMS

President J. Sam Turberville announces that the Pre-Convention Meeting will be held at the Angebilt Hotel, Orlando, Sunday, January 19. Annual reports of councilors will be read at that time and turned in for publication in the *Journal*. Preliminary reports will be made by chairmen of standing committees. Sunday forenoon will be devoted to meetings of standing committees. A luncheon will be served at noon, followed by a general session where councilors' reports and preliminary reports of committee chairmen will be heard.

\* \* \*

All members of the State Association interested in forming a Florida Obstetrics and Gynecology Society are invited to attend an organization meeting, Sunday, January 19 at 11 a. m. in Orlando. This preliminary meeting is sponsored by Drs. E. Bryant Woods, W. M. Rowlett, Robert G. Nelson and Harold G. Nix, who urge all members of the State Medical Association interested in a Florida Obstetrics and Gynecology Society to attend the meeting Sunday at 11 a. m. in Orlando.

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Dr. Charles B. Mabry of Jacksonville spent several weeks in Boston in November, doing research work in pathology and orthopedic surgery at the Massachusetts General Hospital.

\* \* \*

Dr. Warren W. Quillian of Coral Gables was elected president of the Section on Pediatrics at the meeting of the Southern Medical Association in Louisville, November 12-15.

\* \* \*

Dr. Robert T. Spicer of Miami was appointed a member of the Miami Publicity Advisory Board in October by the City Commission.

\* \* \*

Dr. and Mrs. George A. Davis of DeLand celebrated their 56th wedding anniversary in October. Dr. Davis is a life member of the State Medical Association.

Dr. W. L. Shackelford of West Palm Beach, administrator of the Good Samaritan Hospital, was guest speaker at the local Lions' Club luncheon, October 28.

\* \* \*

Dr. J. Maxey Dell, chairman of the Association's Committee on Legislation and Public Policy, called together a few members to discuss his committee's plans, at the intermission of the Southeast Medical District meeting at Coral Gables, November 2. Those present were Drs. Dell, chairman; J. S. Stewart, member of the committee; J. Sam Turberville, president; Leigh F. Robinson, past president; Gilbert S. Osincup, chairman of the Executive Committee; and Stewart Thompson, managing director.

\* \* \*

Dr. J. Sam Turberville of Century was elected president of the Gulf Coast Clinical Society at the annual meeting held in Gulfport, Miss., October 18. Dr. J. C. McSween of Pensacola was elected secretary-treasurer. The next meeting of the Society will be held in Pensacola.

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Dr. Gordon H. Ira of Jacksonville, governor of the Fourth District, Optimist International, was the guest speaker at a banquet held at the Country Club of Orlando, the early part of November, when an Orlando chapter was organized.

\* \* \*

Bulletin No. 3, published recently by Mr. H. L. Sandberg, Director of the Cooperative Medical Advertising Bureau of the American Medical Association, which was mailed to the secretaries of all state medical associations, contained the following paragraph:

"If you are experiencing any difficulty in securing news data, you may wish to try the method employed by Stewart G. Thompson, Managing Director of the Florida Medical Association. He encloses a regular business reply card in practically all correspondence to members. The use of this card not only brings an abundance of news items but is good psychology because, chances are, doctors who send in cards will search the Journal for their item—thereby increasing reader interest. The size of the card used by Dr. Thompson is 3x5 inches."

Dr. E. Bryant Woods of Tampa attended clinics at St. Louis and Washington universities in St. Louis following the meeting of the Southern Medical Association in November.

\* \* \*

Dr. W. C. McConnell, secretary of the Pinellas County Medical Society, has distributed to the members of that society a three-months calendar, size 6"x9", with a blotter on the reverse side. The artistically decorated calendar, in addition to a holiday greeting, bears this truism: "Whereas a cultist would give a fortune for membership, but cannot get it; a member may take the privilege for granted and be apathetic about attending meetings." This is one of his many schemes to create interest and enthusiasm among the local members.

\* \* \*

Dr. Walter C. Jones of Miami has been appointed a member of the Council of the Southern Medical Association from Florida for a regular Council term of five years, the appointment having been announced recently by the President, Dr. Paul H. Ringer, Asheville, N. C. Dr. Jones succeeds Dr. Luther W. Holloway of Jacksonville, who, having served the constitutional limit, was not eligible for re-appointment.

\* \* \*

Doctors from Florida who attended the Clinical Congress of the American College of Surgeons in Chicago, October 21-25, were: Orville N. Nelson, Bay Pines; W. D. Sugg, Bradenton; J. I. Turberville, Century; J. Ralston Wells, Daytona Beach; Rabun H. Williams, Eustis; Leigh F. Robinson, Ft. Lauderdale; Edwin H. Andrews and John E. Maines, Jr., Gainesville; Kenneth A. Morris, G. F. Oetjen, George W. Richardson, Edmund H. Teeter and F. J. Waas, Jacksonville; I. M. Hay, Melbourne; Samuel F. Elder and John T. Macdonald, Miami; Herman Boughton, Frank B. Voris and Harrison A. Walker, Miami Beach; Thomas H. Wallis, Ocala; J. R. Chappell, William O. Fowler, Frank D. Gray, Palmer R. Kundert, John S. McEwan, Louis M. Orr and Don C. Robertson, Orlando; Leland F. Carlton, Tampa; L. M. Rozier, West Palm Beach.

Doctors from Florida who attended the annual meeting of the Southern Medical Association in Louisville, November 12-15 were:

L. L. Lancaster, Bartow; Frank V. Chappell, Clearwater; F. E. Kitchens, Warren W. Quillian, and Hillard W. Willis, Coral Gables; Russell B. Carson and Elliott M. Hendricks, Ft. Lauderdale; DeWitt T. Smith and William C. Thomas, Gainesville; Alan Brown, Thomas E. Buckman, L. Y. Dyrenforth, Luther W. Holloway, Louie Limbaugh, T. H. Lipscomb, and Lauren M. Sompayrac, Jacksonville; N. A. Baltzell, Marianna; Herbert Eichert, Elmo D. French, Walter C. Jones, T. O. Otto and Homer L. Pearson, Miami; Vergil G. Stead, Naples; G. Tayloe Gwathmey and Louis M. Orr, Orlando; Allen P. Gurganious, Palatka; J. R. Norton, Port St. Joe; E. Bryant Woods, Tampa; Frederick K. Herpel, Lloyd J. Netto and Harry A. Wakefield, West Palm Beach.

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In attendance at the Cleveland Assembly of the Inter-State Postgraduate Medical Association of North America, October 13 to 18, were the following members of the Florida Medical Association: Mark E. Adams, William G. Harris, Charles F. Henley, and E. C. Watt, Jacksonville; Earl H. Roberts, Jacksonville Beach; Harold H. Fox, Laura M. Hobbs, and Benjamin F. Hodsdon, Miami; James R. Jeffrey, Miami Springs; L. N. Christensen, L. Paul Foster, Eugene L. Jewett, and John S. McEwan, Orlando; A. R. Beyer, Tampa, and Ruth S. Hart, Winter Park.

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Dr. J. H. Mitchell of Jacksonville was recently re-elected president of the Baptist Children's Home in that city. The home, organized in 1926 and opened in 1927, is a department of the Jacksonville Baptist Association and the Northeast Florida Baptist Association.

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A contract has been let for the construction of six new rooms as an addition to the Joseph Halton Hospital, Sarasota. Since the original structure was completed in 1921, additions were made in 1924 and in 1938.

Dr. Herbert L. Bryans of Pensacola has been appointed a member of the State Board of Health by Governor Fred Cone, to fill the unexpired term of the late Dr. N. A. Baltzell of Marianna.

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At the meeting of the American Academy of Dermatology and Syphilology, held in Chicago, December 2 and 3, Florida doctors in attendance were: Alan Brown and Lauren M. Sompayrac, Jacksonville; E. D. French, Rothwell Lefholz and Wiley M. Sams, Miami; C. A. Andrews, Tampa.

\* \* \*

Dr. Robert A. Mayer recently completed residencies at the Cincinnati Children's Hospital, the Cook County Children's Hospital of Chicago, and the Municipal Contagious Disease Hospital of Chicago, and has opened offices in Miami Beach. Dr. Mayer will limit his practice to pediatrics.

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Dr. John J. Jares, formerly of Lakeland, announces the opening of his offices at 214 Commercial Court, Sarasota. Dr. Jares' practice will be limited to radiology.

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### ROY JONES HOLMES

Dr. Roy J. Holmes of Miami died on October 9, at the age of 46 years. He was born in Wadley, Georgia, the son of Dr. and Mrs. W. B. Holmes. He received his premedical education at Mercer University, Macon, Ga., and his medical training at Vanderbilt University, from which he was graduated in 1917.

Limiting his practice to urology, he soon won recognition in this field and, at the time of his death, he was Chief of the Urologic Staff of the Jackson Memorial Hospital, Miami, and of the Dade County Hospital, Kendall, as well as visiting urologist to the Victoria Hospital, Miami.

Dr. Holmes was active in both professional and civic circles, holding membership in the Dade County Medical Society, the Florida, Southern, and American Medical Associations, the American Urological Association, and



the Southeastern Branch of the American Urological Association; he was a Fellow of the American College of Surgeons, a Diplomate of the American Board of Urology, a member of the Rotary Club of Miami, the Alpha Tau Omega Fraternity, the Scottish Rite of Freemasonry, the Shrine, Phi Beta Pi Medical Fraternity and the Baptist church.

He is survived by his wife, Esther, and a son, Roy, Jr.; his parents, Dr. and Mrs. W. B. Holmes of Wadley, Ga.

Dr. Holmes' sympathy for the unfortunate, his understanding of Nature and his unbounded imagination were vividly revealed in his writings, for he was the author of non-medical as well as medical essays. His quiet dignity and profound sincerity won for him friends in all walks of life, who feel a personal loss in his passing.

The following tribute from the pen of Dr. Bascom Palmer, a fellow member, was paid to Dr. Holmes by the Miami Rotary Club on October 10:

It is with a feeling of sadness and humility that we speak here in recognition of the high character and splendid works of one of our members who on yesterday relinquished his mortal endeavors, and it is the meaning rather than our words which extol his multitude of virtues.

The hand of death is ever too untimely when it falls upon a good and useful man, and surely *this* man exemplified the finest precepts and traditions of society. He had many inducements to be fond of life—a happy family, a high reputation, a dignity of conduct, and a courage that ever prompted him to speak his convictions fearlessly yet with gentle consideration for the opinions of others. His must have been a blameless conscience, too, for with each closing day he knew within his heart (that innermost chamber where inept meditation and sophistry cannot enter) that he had given of his best efforts suitable to his profession and his character. Unfolding in his daily actions the urge for "Service above Self," his became a restless soul whose too intense attachment for an ideal destroyed the hope of relaxation. He knew this, and yet knowing, he continued to fight a good fight and "keep the faith" for rich and poor alike.

"An unworthy man can easily find opportunity to do a mean thing but to a true man there never comes occasion for it." These words, I think, will always be to us a word picture of our departed friend and member, Roy Jones Holmes, Medical Doctor unexcelled; recollection of whom will not perish with the man but will be fed and strengthened by reflection and memory.

Therefore, Mr. President, since God in His infinite wisdom has taken this beloved one back unto Himself, I move you that this Club stand in silent tribute and ask our Father Who Art in Heaven to suffuse the souls of those dear ones remaining with that abiding spirit which sustains.

Now, therefore, be it resolved, that while we bow in humble acceptance to the Divine Will, we record this our appreciation for his usefulness and noble character; our grief at his passing from us; and our deep sympathy for his bereaved family, associates, and friends.

## MEDICAL DISTRICT MEETING—D

### Dunedin

The fourth annual meeting of the Southwest Medical District was held at Dunedin, Thursday afternoon, October 31, with headquarters at the Yacht Club Inn. There was a total registration of 99, of which number 78 were Association members (from this district, 68); 4 were visitors, and 17 were ladies.

The first general session was called to order at 2:30 p. m. by Dr. W. C. McConnell, senior councilor. An address of welcome was given by Dr. N. W. Gable, president of the Pinellas County Medical Society. The Chair called for invitations for a meeting place for 1941. Dr. C. H. Murphy, on behalf of the Polk County Medical Society, extended an invitation to meet in Bartow and, by unanimous vote, Bartow was selected as the meeting place for 1941.

The gavel was turned over to Dr. H. V. Weems, junior councilor, who called the scientific session to order. The following scientific papers were presented:

"A Review of Some of the More Commonly Used Drugs in Urology," Dr. Alvin L. Mills, St. Petersburg.

"The Life of the Doctor," Dr. David R. Kennedy, Sarasota.

"Occlusive Lesions of the Peripheral Blood Vessels," (By invitation) Dr. R. B. Harkness, Lake City.

The papers were well presented and many of the doctors took part in the discussions.

After a 15-minute intermission, Dr. W. C. McConnell, senior councilor, called the second general session to order at 4:50 p. m. Dr. J. Sam Turberville, president, made a brief address. Dr. Robert B. McIver, chairman of the Council, was recognized and commented on the activities of the Council. Dr. Walter C. Jones, Jr., president-elect, talked briefly on the problems to be faced during his term of office. Dr. John R. Boling, first vice-president, was also introduced. The following chairmen of standing committees made brief reports of their committee activities: Dr. Gilbert S. Osincup, Executive Committee; Dr. Gordon H. Ira, Advisory Committee to Woman's Auxiliary; Dr. J. L. Estes reported for Dr. T. Z. Cason, Committee on Medical Postgraduate Course; Dr. W. C. McConnell reported for Dr. J. M. Dell, Committee on Legislation and Public Policy; Dr. H. E. Whitaker reported for Dr. J. Ralston Wells, Committee on Public Relations; Dr. Leland F. Carlton reported for Dr. Herbert E. White, Committee on Scientific Work. Three past presidents from this district

were recognized: Dr. John C. Vinson, Dr. H. Mason Smith and Dr. O. O. Feaster. Dr. W. Henry Spiers of Orlando, a past president from District E, was introduced as were the following guests: Dr. J. G. Lyerly, Jacksonville; Dr. W. H. Pickett, assistant state health officer; Dr. J. N. Patterson, Director of the Bureau of Laboratories of the State Board of Health; and Dr. W. E. Kendall of the Veterans' Hospital at Bay Pines.

At the close of this session the members, guests and ladies were invited to proceed to the dining room annex to enjoy the social hour. Those present gathered on the steps of the Yacht Club Inn and on the lawn where several photographers were busy taking still and motion pictures of those who were in attendance. Dr. J. A. Mease, Jr., chairman of the Local Committee on Arrangements, announced that those who wished to see their pictures on a movie screen were invited to be present at next year's meeting in Bartow.

At 7 p. m. the crowd assembled in the main dining room where a delightful feast was served. Dr. W. C. McConnell, senior councilor, acted as toastmaster and kept those present in an uproar with his witticisms. A unanimous vote of thanks was extended to the Pinellas County Medical Society and the Local Committee on Arrangements, Dr. J. A. Mease, Jr., Dr. H. E. Winchester and Dr. E. M. Harrison. Included in this vote of thanks were Mrs. E. M. Harrison and her associates who were in charge of the ladies' entertainment; the city officials; the hotel management; and other citizens who contributed largely to the success of this medical district meeting.

#### REGISTRATION—DISTRICT D

*Officers:* W. C. McConnell, St. Petersburg, senior councilor; H. V. Weems, Sebring, junior councilor; Stewart Thompson, Jacksonville, managing director.

*Bartow:* C. H. Murphy. *Bay Pines:* F. J. Mantell. *Bradenton:* C. W. Larrabee. *Century:* J. S. Turberville. *Clearwater:* R. H. Center, P. H. Guinand, J. Sudler Hood, Robbins Nettles, M. A. Nickle. *Dunedin:* Everett M. Harrison, J. A. Mease, Jr., H. E. Winchester. *Ft. Myers:* H. J. Stipe. *Jacksonville:* Gordon H. Ira, J. G. Lyerly, Robert B. McIver, J. N. Patterson, William H. Pickett. *Lake City:* R. B. Harkness. *Largo:* J. M. Kent. *Miami:* Walter C. Jones, Jr. *Naples:* Vergil G. Stead. *Orlando:* L. C. Ingram, Gilbert S. Osincup, W. Henry Spiers. *Ozona:* Grace R. Whitford. *Plant City:* J. W. Alsbrook, Edgar Austin.

*St. Petersburg:* William M. Davis, A. M. Feaster, O. O. Feaster, N. W. Gable, Earl C. MacCordy, M. O. McNay, N. M. Marr, Alvin L. Mills, R. Wynn S. Owen, C. C. Rudolph, J. A. Strickland, H. Tuttle Stull. *Sarasota:* John M. Butcher, J. E. Harris, David R. Kennedy, A. Lamar Matthews, A. O. Morton, T. W. Taylor, Millard B. White. *Sebring:* L. W. Martin.

*Tampa:* S. H. Adams, C. A. Andrews, A. M. Bidwell,

John R. Boling, Leland F. Carlton, H. G. Cole, H. M. Cook, J. C. Dickinson, James L. Estes, S. H. Etheredge, Eugene S. Gilmer, Charles M. Gray, J. C. Griffin, Henry J. Jensen, A. R. Knauf, R. Bradner Mertz, David R. Murphey, Jr., Harold G. Nix, Joseph J. Ruskin, H. Mason Smith, H. O. Snow, Alvord L. Stone, Joseph W. Taylor, R. S. Torbett, J. C. Vinson, H. E. Whitaker, E. B. Woods. *Venice:* Edmund P. Shelby. *Visitors—Bay Pines:* W. E. Kendall. *Oldsmar:* H. B. Hiatt. *Clinton, Iowa:* Ralph A. Butler.

*Ladies*—Listed on Auxiliary page in this Journal.

#### MEDICAL DISTRICT MEETING—E

##### Fort Pierce

The fourth annual meeting of the South Central Medical District was held at Ft. Pierce, Friday afternoon, November 1, with headquarters at the New Fort Pierce Hotel. There was a total registration of 49, of which number, 37 were Association members (from this district, 26); 2 were visitors, and 10 were ladies.

Dr. A. M. Sample, senior councilor, called the first general session to order at 2:45 p. m. The address of welcome was given by Dr. Francis A. Gowdy, president of the St. Lucie-Okeechobee-Indian River-Martin County Medical Society. The chair called for the selection of a meeting place for 1941. Dr. C. J. Collins, on behalf of the Orange County Medical Society, extended an invitation to meet at Orlando and, by unanimous vote, Orlando was selected as the next meeting place for the South Central Medical District.

The gavel was turned over to Dr. J. R. Chappell, junior councilor, who called the scientific session to order. The following scientific papers were presented:

"Loss of Integrity of Radio-Ulnar Joint in Colles' Fracture" (Charts), Dr. I. M. Hay, Melbourne.

"Perirectal Infection From the Anaerobic Streptococcus," Dr. Duncan T. McEwan, Orlando.

"Some Minor Surgical Procedures" (Lantern slides), (By invitation), Dr. Joseph S. Stewart, Miami.

All of the papers were well presented and the discussions extremely interesting.

After a 15-minute intermission, the second general session was called to order at 4:30 p. m. by Dr. A. M. Sample, senior councilor. Dr. J. Sam Turberville, president, made a brief address on Association affairs, and Dr. Robert B. McIver, chairman of the Council, commented on the activities of the Council. Dr. E. B. Hardee, third vice president, was also recognized. Dr. Walter C. Jones, Jr., president-elect, discussed some problems that he expected to face during his term of office as president. The following chairmen of standing committees made preliminary reports: Dr. Gilbert S. Osincup, Executive Committee; Dr. Gordon



H. Ira, Advisory Committee to Woman's Auxiliary. Dr. C. J. Collins reported for Dr. Herbert E. White, chairman of the Committee on Scientific Work; Dr. E. B. Hardee reported for Dr. T. Z. Cason, chairman of the Committee on Medical Postgraduate Course; Dr. Hewitt Johnston reported for Dr. J. M. Hoffman, chairman of the Committee on Cancer Control; Dr. I. M. Hay reported for Dr. E. C. Swift, chairman of the Committee on Inter-Relationship, and for Dr. Ferdinand Richards, chairman of the Committee on Maternal Welfare; and Dr. Duncan T. McEwan reported for Dr. M. Jay Flipse, chairman of the Committee on Tuberculosis and Public Health. Dr. W. Henry Spiers, past president, was recognized. The following guests from other districts were called on for brief talks: Dr. J. G. Lyerly, Jacksonville; Dr. A. B. McCreary, State Health Officer; Dr. W. H. Pickett, Assistant State Health Officer; and Dr. J. N. Patterson, Director of the Bureau of Laboratories of the State Board of Health.

At 6 p. m. the ladies joined the doctors and guests for a social hour, followed by a buffet supper at 7 p. m. Entertainment for the ladies was in charge of Mrs. F. A. Gowdy and her associates.

A unanimous vote of thanks was extended to the St. Lucie-Okeechobee-Indian River-Martin County Medical Society and to the Local Committee on Arrangements, Dr. H. D. Clark, Dr. R. C. Boothe and Dr. M. D. Council. Included in this vote of thanks were Mrs. F. A. Gowdy and her associates in charge of the ladies' entertainment; the city officials; the hotel management; and other citizens who contributed largely to the success of this medical district meeting.

#### REGISTRATION—DISTRICT E

*Officers:* A. M. Sample, Ft. Pierce, senior councilor; J. R. Chappell, Orlando, junior councilor; Stewart Thompson, Jacksonville, managing director.

*Century:* J. S. Turberville. *Cocoa:* T. C. Kenaston, W. C. Page, A. F. Thomas. *Ft. Lauderdale:* R. L. Elliston. *Ft. Pierce:* R. C. Boothe, H. D. Clark, M. D. Council, H. B. Goodwin, Jr., F. A. Gowdy, Steve R. Johnston, C. H. Stoner, L. L. Whiddon. *Jacksonville:* Gordon H. Ira, J. G. Lyerly, A. B. McCreary, Robert B. McIver, J. N. Patterson, William H. Pickett. *McLaurine:* I. F. Bean, I. M. Hay. *Miami:* Walter C. Jones, Jr., George D. Lilly, Joseph S. Stewart.

*Orlando:* C. J. Collins, L. C. Ingram, Hewitt Johnston, Duncan McEwan, Gilbert S. Osincup, W. Henry Spiers, S. L. Zieve. *Sanford:* T. F. McDaniel. *Stuart:* Walter F. Davey, J. D. Parker. *Vero Beach:* E. B. Hardee.

*Visitors—Orlando:* F. H. Clay.

*Ladies—Listed on Auxiliary page in this Journal.*

## MEDICAL DISTRICT MEETING—F

### Coral Gables

The fourth annual meeting of the Southeast Medical District was held at Coral Gables, Saturday afternoon, November 2, with headquarters at the Miami Biltmore Country Club. There was a total registration of 157, of which number 99 were Association members (from this district, 84); 7 were visitors, and 51 were ladies.

The first general session was called to order by Dr. Kenneth Phillips, senior councilor. The address of welcome was given by Dr. Joseph S. Stewart, president of the Dade County Medical Society. The Chair called for the selection of a meeting place for 1941. Dr. E. M. Hendricks, on behalf of the Broward County Medical Society, extended an invitation to meet at Ft. Lauderdale and, by unanimous vote, Ft. Lauderdale was selected as the meeting place for the next year.

The gavel was turned over to Dr. R. L. Elliston, junior councilor, who called the scientific session to order. The following scientific papers were presented:

"Medicine and the Florida Criminal Law" (Lantern slides), Dr. F. H. Dieterich, Miami.

"The Colon as a Focus of Infection" (Lantern slides), Dr. E. M. Hendricks, Ft. Lauderdale.

"Pain Produced by Urologic Disease" (Lantern slides), Dr. Russell B. Carson, Ft. Lauderdale.

"Vaginal Hysterectomy" (Moving pictures), (By invitation), Dr. J. R. Boling, Tampa.

The papers were well presented and the discussions were extremely interesting.

By common consent the usual 15-minute intermission was dispensed with and Dr. Kenneth Phillips, the senior councilor, called the second general session to order. The Chair requested those present to rise and stand in silence, in memory of the late Dr. Roy J. Holmes. The gavel was sounded and the program of the second general session continued at 4:35 p. m.

Dr. J. Sam Turberville, president, reviewed Association affairs and Dr. Robert B. McIver, chairman of the Council, explained the activities of the Council in connection with the planning and holding of the six medical district meetings. Dr. Walter C. Jones, Jr., president-elect, mentioned some problems that will be faced during his term of office as president. Reports of standing committees were as follows: Dr. Gilbert S. Osincup, chairman of the Executive Committee; Dr. H. A. Barge, chairman of the Committee on Necrology; Dr. Warren W.



Quillian, chairman of the Committee on Child Health; Dr. Gordon H. Ira, chairman of the Advisory Committee to Woman's Auxiliary; and Dr. W. W. George reported for Dr. T. Z. Cason, chairman of the Committee on Medical Postgraduate Course. Dr. Leigh F. Robinson, a past president living in the district, was recognized; also Dr. W. Henry Spiers, past president from District E, and Dr. O. O. Feaster, past president from District D. Guests who were introduced were: Dr. J. G. Lyerly, Jacksonville; Dr. L. C. Ingram, Orlando; Dr. A. B. McCreary, State Health Officer; Dr. W. H. Pickett, Assistant State Health Officer; and Dr. J. N. Patterson, Director of the Bureau of Laboratories of the State Board of Health. Four women physicians were present and were recognized: Dr. Lydia A. DeVilbiss, Dr. Anna A. Darrow, Dr. Laura M. Hobbs and Dr. Annette M. Feaster.

At 6 p. m. the ladies joined the doctors and guests for a social hour in the ladies' lounge of the Club and at 7 o'clock the banquet was served on the deck of the famous Biltmore pool. The Local Committee on Arrangements, headed by Dr. M. M. Coplan, Dr. Hillard W. Willis, Dr. Herman Boughton, and Mrs. Hillard W. Willis, had made such elaborate plans for the social and entertainment features, that the entire afternoon and evening were a delightful occasion for all who were fortunate enough to be present. The attendance at this meeting surpassed that of all previous medical district meetings. The names listed below include those who registered up until 6 p. m. There were, however, a large number present at the banquet, who did not register and whose names do not appear in the registration list.

A unanimous vote of thanks was extended to the Dade County Medical Society and the Local Committee on Arrangements, Drs. M. M. Coplan, Hillard W. Willis and Herman Boughton. Included in this vote of thanks were Mrs. Hillard W. Willis and her associates in charge of the ladies' entertainment; the city officials; the club management; and other citizens who contributed largely to the success of this medical district meeting.

#### REGISTRATION—DISTRICT F

*Officers:* Kenneth Phillips, Miami, senior counselor; R. L. Elliston, Ft. Lauderdale, junior counselor; Stewart Thompson, Jacksonville, managing director.

*Century:* J. S. Turberville. *Coral Gables:* A. D. Amerise, C. R. Burbacher, Jack Q. Cleveland, J. K. Cole, F. E. Kitchens, Warren W. Quillian, T. D. Sand-

berg, Arthur H. Weiland, Hillard W. Willis. *Ft. Lauderdale:* Robert Blessing, O. C. Brown, Russell B. Carson, Anna A. Darrow, L. B. Elliston, Donald H. Gahagen, Elliott M. Hendricks, C. A. Peterson, Leigh F. Robinson, Frances S. Skiff, Lawrence L. Stepp. *Gainesville:* J. Maxey Dell. *Jacksonville:* Gordon H. Ira, J. G. Lyerly, A. B. McCreary, Robert B. McIver, J. N. Patterson, W. H. Pickett.

*Miami:* James L. Anderson, H. A. Barge, Nelson M. Black, M. M. Coplan, E. W. Cullipher, Lydia A. DeVilbiss, F. H. Dieterich, L. W. Dowlen, C. E. Dunaway, Edward F. Fox, J. Raymond Graves, A. H. Hinton, Laura M. Hobbs, William M. Howdon, S. Curtis Johnson, Walter C. Jones, W. T. Lanier, R. L. Laymon, Taylor Lewis, George D. Lilly, J. M. McClamroch, J. H. Mendel, John D. Milton, Frank R. Morrow, E. S. Nichol, James H. Putman, Gerard Raap, James C. Rinaman, Marvin Smith, Franz Stewart, Joseph S. Stewart, H. L. Tippins, F. A. Vogt, P. H. Waters, William H. Waters, M. C. Wilson, A. W. Wood.

*Miami Beach:* Herman Boughton, J. R. Cogan, O. S. Dowlen, David W. Exley, A. R. Hollender, George N. Leonard, M. B. Marks, D. A. Nathan, W. Duncan Owens, F. J. Payton, Guy R. Stoddard, Arthur L. Walters. *Orlando:* L. C. Ingram, G. S. Osincup, W. H. Spiers. *Palm Beach:* S. Richard Ombres. *Pompano:* S. A. Winsor. *St. Petersburg:* Annette M. Feaster, O. O. Feaster, H. Tuttle Stull. *Tampa:* John R. Boling.

*West Palm Beach:* C. J. Derrick, S. W. Fleming, W. W. George, F. K. Herpel, David W. Martin, Lloyd J. Netto, J. H. Pittman, William Y. Sayad, J. R. Sory, Edgar W. Stephens, William H. Weems.

*Visitors—Miami:* R. H. Brooks, T. J. Kaminski, H. C. Lawther, Reaves A. Wilson. *Miami Beach:* M. B. Cirlin. *Chicago, Ill.:* Henry C. Sweany.

Ladies—Listed on Auxiliary page in this *Journal*.

### COMPONENT COUNTY SOCIETIES

#### DADE

The Dade County Medical Society met on the evening of November 6 in the Sunshine Room of the Ingraham Building. The scientific program consisted of a symposium on "Sulfathiazole", five aspects of which were presented, as follows:

"Urological"—Dr. James J. Nugent

"Medical"—Dr. Scheffel H. Wright

"Surgical"—Dr. Donald W. Smith

"Gynecological"—John T. Mitchell

"Skin"—Dr. Wiley M. Sams

The sound film "When Bobby Goes to School" was also presented

\* \* \*

#### DUVAL

Dr. William H. McCullagh was the principal speaker at the monthly meeting of the Duval County Medical Society held in the Library of the State Board of Health on the evening of November 5. He illustrated his talk on "Treatment of Neuropsychiatric Diseases" with motion pictures.

The topic was discussed by Dr. Sullivan Bedell and Dr. J. G. Lyerly. Dr. James M. Bryant was in charge of the scientific phase of the program.

### LEON-GADSDEN-LIBERTY-WAKULLA- JEFFERSON

The annual meeting of the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society was held on the afternoon of October 17 at the Florida State Hospital, Chattahoochee. The following officers were elected: *president*, Dr. S. E. Wilhoit, Quincy; *vice-president*, Dr. G. H. Garmany, Havana; *secretary-treasurer*, Dr. B. A. Wilkinson, Tallahassee.

The following scientific program was presented:

"History of Eye Glasses"—Dr. Henry Moore, Thomasville, Ga.

"Comparison of the Hinton, Kahn, Kline and Wassermann Tests"—Dr. E. Henry Ruediger, Chattahoochee.

"Toxic Exhaustive Confusional Reactions"—Dr. H. D. Allen, Jr., Milledgeville, Ga.

At the business meeting, which followed the scientific session, the following resolutions were passed:

#### RESOLUTIONS ON THE DEATH OF DOCTOR RALPH E. STEVENS.

*Whereas*, As it must come to all men, death came to Doctor Ralph E. Stevens on June 6, 1940, and

*Whereas*, With profound sorrow the members of this Society record the passing of one of its most earnest and zealous associates; be it therefore

*Resolved*, That in recognition of his ability as a member of the profession, and his untiring and conscientious service to humanity, we as a Society express our appreciation of his high ideals and progressive spirit, and be it further

*Resolved*, That this expression of appreciation be spread on the minutes of this meeting, a copy sent to the Journal of the Florida Medical Association, and to the family of the deceased, with our sympathy.

B. A. WILKINSON, M. D.

W. G. MILES, M. D.

W. D. ROGERS, M. D.

Committee.

\* \* \*

### PASCO-HERNANDO-CITRUS

Dr. J. T. Bradshaw entertained the Pasco-Hernando-Citrus County Medical Society at the Gray Moss Hotel in Dade City, Thursday evening, November 21. A full course turkey dinner was enjoyed by all the doctors present.

Minutes of the last meeting were read and adopted. Dr. S. C. Harvard was appointed to confer with Mr. Clifford Walker of the Farm Loan Administration with reference to a proposed agreement.

Case reports were given by Drs. H. Durham Young, G. R. Creekmore, S. C. Harvard, W. H. Walters, Jr., and W. Wardlaw Jones, and discussed by those present.

Dr. W. H. Walters invited the Society to meet with him in Lacoochee on December 12.

Present at this meeting were: members—Drs. Bradshaw, Creekmore, Harvard, Jones, Sistrunk, and Walters; guests—Dr. Stanley T. Simons, Dade City, and Dr. H. Durham Young, Bushnell.

\* \* \*

### PINELLAS

Dr. F. H. Langley of St. Petersburg was principal speaker at a meeting of the Society held on the evening of November 1 at the Shrine Club. His subject was "Acute Pancreatitis".

At the second meeting of the month, held November 15, the following program was presented:

Case Reporting opened by Drs. C. S. Franckle and R. K. O'Brien.

"The Use of Pituitrin in the First and Second Stages of Labor"—Dr. Claude B. Wright.

"Highlights on Poliomyelitis"—Dr. D. F. H. Murphey.

"Correction of Deformities Caused by Burns"—Dr. Prescott LeBreton.

"Good-bye to Dr. N. W."—Dr. E. C. MacCordy.

\* \* \*

### VOLUSIA

The November dinner meeting of the Volusia County Medical Society was held on the evening of the 12th at the Stetson University Commons, Deland. Thirty-seven doctors and their wives attended.

The scientific program consisted of two papers, one by Dr. L. B. Bouchelle of New Smyrna on "Rheumatic Arthritis" and the other by Dr. C. E. Tribble of Deland on "Lung Abscesses," which was illustrated with lantern slides.

It was decided to hold the next meeting at Daytona Beach, December 10.

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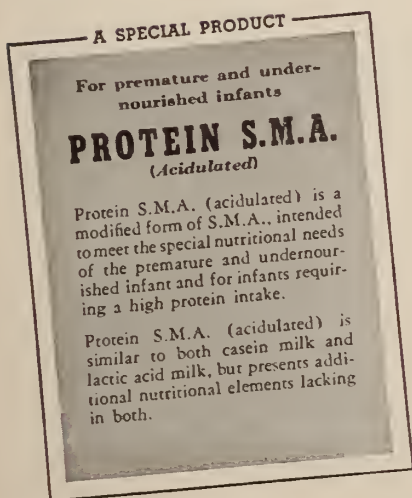
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## ADVERTISERS' NOTES

### AFTER-IMAGE TESTER, A NEW ADVANCE

The perplexing problem of deciding the possibility of treating cross-eyes successfully has been solved by the development of a new testing device, first of its kind, which determines in advance of treatment whether the eyes of cross-eyed persons can work together as a unit after they have been straightened by eye-muscle exercises or surgery.

The new instrument, announced by Dr. J. F. Neumueller, director of American Optical Company's bureau of visual science, requires only a half minute for the diagnosis, and its performance is based on the phenomenon of the after-image—the sensation of seeing an image after the stimulation causing it has ceased to exist.

The after-image tester consists of a glass tube containing an electric wire. The current is switched on and as the wire glows the patient looks through one eye only at a red dot on the center of the tube. The tube is then turned from its horizontal position to a vertical position and the patient peers at the red spot through his other eye.

Then the light is turned off and the patient, both eyes now open, looks at a fairly bright wall. Soon he notices two dark lines, the negative after-images. If these two lines form a cross, his cross-eyes can be successfully treated. But if the two lines do not meet, chances of restoring binocular vision are remote.

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### THE SCHOOL-CHILD'S BREAKFAST

Many a child is scolded for dulness when he should be treated for undernourishment. In hundreds of homes a "continental" breakfast of a roll and coffee is the rule. If, day after day, a child breaks the night's fast of twelve hours on this scant fare, small wonder that he is listless, nervous or stupid at school. A happy solution to the problem is Pablum (Mead's Cereal cooked and dried). Six times richer than fluid milk in calcium, ten times higher than spinach in iron, containing vitamins B<sub>1</sub> and G, Pablum furnishes protective factors especially needed by the school-child. The ease with which Pablum can be prepared enlists the mother's co-operation in serving a nutritious breakfast. This palatable cereal requires no further cooking and can be prepared simply by adding milk or water of any desired temperature.

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Other firms who wish to secure space in the new Directory are requested to make application at once to the Florida Medical Association, Box 1018, Jacksonville.

## WOMAN'S AUXILIARY

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MRS. J. W. McMURRAY, First Vice-President *Ft. Lauderdale*  
MRS. F. W. KRUEGER, Second Vice-President .....*Jacksonville*  
MRS. LEROY H. OETJEN, Recording Secretary .....*Leesburg*  
MRS. CLAYTON E. ROYCE, Corresponding Sec. ....*Jacksonville*  
MRS. M. J. FLIPSE, Historian .....*Miami*  
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MRS. W. J. BARGE, Finance .....*Miami*  
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MRS. CLYDE ANDERSON, Archives .....*St. Petersburg*  
MRS. GEO. C. TILLMAN, Student Loan Fund ....*Gainesville*

### DISTRICT CHAIRMEN

MRS. G. C. TILLMAN, North Central "B" .....*Gainesville*  
MRS. E. W. VEAL, Northeast "C" .....*Jacksonville*  
MRS. J. C. GRIFFIN, Southwest "D" .....*Tampa*  
MRS. W. C. PAGE, South Central "E" .....*Cocoa*  
MRS. HILLARD WILLIS, Southeast "F" .....*Coral Gables*

## DISTRICT MEETINGS

### SOUTHWEST DISTRICT—D

We are glad to report that a District Auxiliary was organized in District D at a recent meeting held in Dunedin on October 31. The following officers were elected, Mrs. J. C. Griffin, Tampa, District chairman, and Mrs. H. G. Nix, Tampa, secretary-treasurer.

A boat ride to Honeymoon Isle was a rare treat to those attending the meeting. A bridge party and tea which followed was enjoyed by every one. The lovely banquet at 7 p. m. climaxed the meeting.

A vote of thanks was extended by the State president, Mrs. Gordon H. Ira, Jacksonville, on behalf of the Woman's Auxiliary to the Florida Medical Association for their splendid cooperation in organizing an Auxiliary and for the generous hospitality extended to those attending the meeting.

### SOUTH CENTRAL DISTRICT—E

At the District Auxiliary meeting held in Fort Pierce, November 1, Mrs. W. C. Page, of Cocoa, was elected District chairman, and Mrs. T. F. McDaniel, Sanford, secretary-treasurer.

A bridge party and tea in the afternoon provided a lovely fellowship for those attending. The business meeting which followed indicated much progress had been made in the activities of the organization.

### SOUTHEAST DISTRICT—F

The District meeting held at Coral Gables on November 2, in the Biltmore Country Club, was well attended.



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A bridge party and fashion show were the delightful entertainment features of the afternoon followed by a business meeting of the Auxiliary.

Mrs. Hillard Willis, 114 Silver Bluff Ave., Coral Gables, was elected District chairman, and Mrs. Jack A. McKenzie, Miami, secretary-treasurer.

A beautiful banquet in the Country Club closed the meeting.

## REGISTRATION

### DISTRICT D

Dunedin, October 31

*Bartow*: Mrs. C. H. Murphy. *Bay Pines*: Mrs. William E. Kendall. *Bradenton*: Mrs. Edna Allen, Mrs. Lynn Willis. *Dunedin*: Mrs. H. E. Winchester. *Jacksonville*: Mrs. Gordon H. Ira. *Lake City*: Mrs. R. B. Harkness. *Orlando*: Mrs. L. C. Ingram. *St. Petersburg*: Mrs. Clyde O. Anderson, Mrs. W. C. McConnell, Mrs. Earl C. MacCordy, Mrs. F. J. Mantell. *Sebring*: Mrs. H. V. Weems. *Tampa*: Mrs. S. H. Adams, Mrs. H. G. Cole, Mrs. J. C. Griffin, Mrs. Harold G. Nix.

### DISTRICT E

Fort Pierce, November 1

*Cocoa*: Mrs. W. C. Page. *Ft. Pierce*: Mrs. R. C. Boothe, Mrs. H. D. Clark, Mrs. F. A. Gowdy. *Jacksonville*: Mrs. Gordon H. Ira. *Orlando*: Mrs. F. H. Clay, Mrs. Charles J. Collins, Mrs. L. C. Ingram. *Sanford*: Mrs. T. F. McDaniel. *Vero Beach*: Mrs. M. D. Council.

### DISTRICT F

Coral Gables, November 2

*Coral Gables*: Mrs. C. R. Burbacher, Mrs. Thomas L. Roberts, Jr., Mrs. Hillard W. Willis. *Ft. Lauderdale*: Mrs. C. A. Peterson. *Jacksonville*: Mrs. Gordon H. Ira. *Miami*: Mrs. J. Alexander, Eunice Anderson, Mrs. H. A. Barge, Mrs. Nelson M. Black, Frances Boughton, Mrs. J. K. Cole, Mrs. E. W. Cullipher. *Mrs. Otto Dowlen*, Mrs. Carl Dunaway, Mrs. A. H. Hinton, Mrs. Walter C. Jones, Jr., Mrs. W. T. Lanier, Mrs. H. C. Lawther, Marjorie Laymon, Mrs. H. A. Leavitt, Mrs. Taylor Lewis, Mrs. G. D. Lilly, Mrs. G. Lynch, Mrs. J. M. McClamroch, Mrs. Jack McKenzie, Mrs. Norton McKenzie, Mrs. William W. McKibben, Mrs. M. C. Martin, Mrs. J. T. Mitchell, Mrs. F. R. Morrow, Mrs. Homer A. Reese, Mrs. C. A. Scarborough, Mrs. Oden Schaeffer, Mrs. C. Kirby Smith, Mrs. Franz Stewart, Mrs. Joseph Stewart, Mrs. Arthur W. Wood.

*Miami Beach*: Mrs. George N. Leonard, Mrs. Edwin P. Preston, Violette Priestley, Mrs. Arthur Walters. *Orlando*: Mrs. L. C. Ingram. *Pompano*: Miss Phyllis Livingston, Mrs. S. A. Winsor. *Tampa*: Mrs. John R. Boling. *West Palm Beach*: Mrs. F. K. Herpel, Miss Betty McKenzie, Mrs. David W. Martin, Mrs. Lloyd J. Netto, Mrs. J. R. Sory, Mrs. E. W. Stephens.

## ORANGE COUNTY AUXILIARY

The October luncheon of the Orange County Auxiliary was held at the Angebilt Hotel, the fourth Tuesday with an attendance of 21.

A change in the constitution and by-laws was voted upon enabling old members to be reinstated without the payment of back dues. A warm welcome was extended to new members. A number of packages containing new garments were donated to the Needle Guild for



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## CHRISTMAS SEALS



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Mrs. Henry Leroy Oetjen, Leesburg, invited the members to be her guests at the November meeting.

Mrs. Gordon H. Ira, state president, was the guest speaker at the November meeting. She outlined the aims and objectives of the State Auxiliary, emphasizing the importance of members working on the program according to social needs as they arise. Self instruction in matters pertaining to a better understanding of public health should be undertaken so that auxiliary members may become instruments in transmitting authentic information to the laity. A box of clothing was sent to the orphans at the Marcus Fagg home in Jacksonville for Christmas.

### HYGEIA CONTEST

To All County Hygeia Chairmen:

Will you please convey the following information to your Auxiliary members and urge them to subscribe to Hygeia and do all they can to promote the contest in your county? I am so anxious that our state or one of our counties win a prize this year, that I shall appreciate the loyalty and support of every auxiliary member in making it a success. Please notify me the number of subscriptions you send in. May I count on you to do your part?

(Mrs. C. H.) Nancy Murphy,  
State Hygeia Chairman.

#### THE 1940-1941 HYGEIA CONTEST

The American Medical Association offers \$400 in cash prizes to the county and state auxiliaries obtaining the largest number of credits to Hygeia during the months of October, November, December and January. The \$400 will be divided into the following cash prizes:

##### COUNTY AUXILIARY PRIZES

The county auxiliary societies will be equally divided into four groups of 100 societies each, the first group with a membership of from one to thirteen; second, from fourteen to twenty-three; third, from twenty-four to forty-two, and fourth, those with a membership of forty-three or more.

Three cash prizes will be given to each group: first prize, \$40; second prize, \$25 and third prize, \$15.

##### STATE AUXILIARY PRIZES

Three cash prizes will be given to State Auxiliaries that have the highest rating based on their paid membership and Hygeia credits obtained: first prize, \$40; second prize, \$25 and third prize, \$15.

For years the Woman's Auxiliary to the American Medical Association has recognized as one of its chief activities the promotion of the distribution of Hygeia through schools, parent-teacher organizations, boards of education, industrial plants, welfare workers, study clubs and similar bodies interested in education.

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**ROENTGENOLOGY**—Courses in X-Ray Interpretation Fluoroscopy, Deep X-Ray Therapy every week.

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### STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville....	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:			
—Northwest .....	B. A. Wilkinson, Tallahassee....	Stewart Thompson, Jacksonville....	Tallahassee, 1941
—North Central .....	William S. Nichols, Lake City....	" " "	Gainesville, 1941
—Northeast .....	Robt. B. McIver, Jacksonville....	" " "	St. Augustine, 1941
—Southwest .....	W. C. McConnell, St. Petersburg..	" " "	Bartow, 1941
—South Central .....	A. M. Sample, Ft. Pierce.....	" " "	Orlando, 1941
—Southeast .....	Kenneth Phillips, Miami.....	" " "	Ft. Lauderdale, 1941
Alabama Medical Association.....	Samuel A. Gordon, Marion.....	D. L. Cannon, Montgomery.....	Mobile, Ala., Apr. 15-17, 1941
Georgia, Medical Assn. of.....	J. C. Patterson, Cuthbert.....	E. D. Shanks, Atlanta.....	Macon, May 13-16, 1941
Florida—			
Chapter, Am. College Phys.....	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami.....	Jacksonville, 1941
State Dental Society.....	I. W. Shields, Miami.....	W. P. Wood, Jr., Tampa.....	Hollywood, 1941
Soc. of Derm. and Syph.....	Alan Brown, Jacksonville.....	Lauren M. Sompayrac, Jacksonville	Jacksonville, 1941
East Coast Medical Association.....	J. S. Stewart, Miami.....	J. Ralston Wells, Daytona Beach..	
State Hospital Association.....	W. L. Shackelford, W. Palm Bch.	Mr. T. F. Alexander, Jacksonville..	New Orleans, 1941
Assn. of Industrial Surgeons.....	A. M. Bidwell, Tampa.....	T. H. Roberts, Lakeland.....	Jacksonville, 1941
Medical Postgraduate Course....	Turner Z. Cason, Jacksonville....	Chairman	
Soc. of Ophthal. & Otol.....	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami.....	Jacksonville, 1941
State Nurses Association.....	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Pediatric Society.....	Warren W. Quillian, Coral Gables	G. N. Leonard, Miami Beach.....	Hollywood, Nov. 1941
Public Health Association.....	L. J. Graves, Tallahassee.....	E. M. L'Engle, Jacksonville.....	Orlando, December, 1941
Podological Society.....	J. H. Lucinian, Miami.....	E. M. Hendricks, Ft. Lauderdale..	Jacksonville, 1941
Railway Surgeons' Association...	Leland F. Carlton, Tampa.....	W. C. Page, Cocoa.....	Jacksonville, 1941
State Pharmaceutical Association...	Mr. P. A. Penberthy, Tampa.....	Mr. R. K. Richards, Ft. Myers....	Jacksonville, May, 1941
Tuberculosis & Health Assn.....	Mr. E. M. Newald, Orlando.....	Mrs. C. R. Whitaker, Eustis.....	
Chattahoochee Valley Med. Assn..	Frank K. Boland, Atlanta.....	Robert B. McIver, Jacksonville....	Jacksonville, July 8-10, 1941
East Coast Clinical Society.....	J. S. Turberville, Century.....	J. C. McSween, Pensacola.....	Pensacola, October, 1941
Sec., Am. Cong. Phys. Ther....	E. C. MacCordy, St. Petersburg	Kenneth Phillips, Miami.....	Chattanooga, May, 1941
Eastern Surgical Congress.....	Irvin Abell, Louisville.....	B. T. Beasley, Atlanta.....	Richmond, Va., Mar., 1941
Western Medical Association.....	Paul H. Ringer, Asheville.....	Mr. C. P. Loran, Birmingham.....	St. Louis, Nov., 1941
Yankee River Medical Society....	T. H. Bates, Lake City.....	H. S. Howell, Lake City.....	



## COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	Amie H. Lisenby, M.D. Panama City	William C. Roberts, M.D. Panama City		11	100%	A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1463 Pensacola	2nd Tuesday 8:00 P. M.	46	44	
	Walton-Ocalaosa	A. G. Williams, M.D. Lakewood	R. B. Spire, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		8	7	
	Franklin-Gulf	Thos. Meriwether, M.D. Wewahitchka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7	100%	A-2-'41 B. A. Wilkinson, M.D. Tallahassee
	Jackson *Calhoun	W. R. Wandeck, M.D. Marianna	B. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	12	10	
	Leon-Gadsden-Liberty- Wakulla-Jefferson	Sterling E. Wilhoit, M. D. Quincy	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	41	40	Northwest District (A) Tallahassee 1941
	Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	14	10	B-3-'41 W. S. Nichols, M.D. Lake City
	Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		9	8	
	Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	8	7	
B	Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	31	26	B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion *Levy	Henry C. Dozier, M.D. 9 No. Magnolia St. Ocala	H. L. Harrell, M.D. 215 Robertson Bldg. Ocala	3rd Thursday 12:30 P. M.	24	100%	
	Pasco-Hernando- Citrus	Wm. H. Walters, Jr., M.D. Lacoochee	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	100%	North Central District (B) Gainesville 1941
	Duval *Clay, Nassau	Chas. B. Mabry, M.D. 439 St. James Bldg. Jacksonville	Laureu M. Sompayrac, M.D. 459 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	180	100%	C-5-'41 R. B. McIver, M.D. Jacksonville
	St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10	100%	N. E. District (C) St. Augustine 1941
	Putnam	G. M. Ziegler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	12	11	C-6-'42 Maximilian Stern, M.D. Daytons Beach
	Volusia *Flagler	L. V. L. Brown, M.D. DeLand	R. L. Miller, M.D. 258 1/2 S. Beach St. Daytons Beach	2nd Tuesday 7:30 P. M.	40	100%	
	Hillsborough	Robert G. Nelson, M. D. 712 Citizens Bank Bldg. Tampa	James S. Grable, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	111	103	D-7-'41 W. C. McConnell, M.D. St. Petersburg
	Manatee	M. M. Harrison, M.D. Professional Bldg. Bradenton	W. E. Wentzel, M.D. Box 245 Bradenton	3rd Tuesday 7:00 P. M.	14	100%	
	Pinellas	John A. Herring, M.D. 259 Third St., No. St. Petersburg	W. C. McConnell, M.D. 313 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	105	100%	
C	Sarasota	Millard B. White, M.D. 151 S. Pineapple Ave. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	16	14	
	DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	100%	D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	A. S. Byle, M.D. 311 2nd St. Fort Myers	Fred D. Bartleson, M.D. Fort Myers	3rd Friday 7:30 P. M.	14	100%	
	Polk	Henry Fuller, M.D. Mulberry	Jere W. Annis, M.D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62	59	Southwest District (D) Bartow 1941
	Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Wednesday	12	11	E-9-'42 J. R. Chappell, M.D. Orlando
	Lake *Sumter	W. L. Ashton, M.D. Umatilla	Clyde F. Bowie, M. D. 1112 W. Main St. Leesburg	1st Thursday 12:30 P. M.	18	17	
	Orange *Osceola	Chas. J. Collins, M.D. 209 Exchange Bldg. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87	100%	
	Seminole	Wade H. Garner, M.D. Sanford	Douglas G. Scott, M.D. 212 N. Park Ave. Sanford	2nd Monday 7:00 P. M.	13	100%	South Central District (E) Orlando 1941
	St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	19	100%	E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	39	100%	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	James H. Pittman, M.D. Box 602 W. Palm Beach	C. Jennings Derrick, M.D. Box 574 W. Palm Beach	4th Monday 8:00 P. M.	67	100%	S. E. District (F) Ft. Lauderdale 1941
	Dade	Joseph S. Stewart, M.D. 525 duPont Bldg. Miami	Franz Stewart, M.D. 525 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	327	314	F-12-'41 Kenneth Phillips, M.D. Miami
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	

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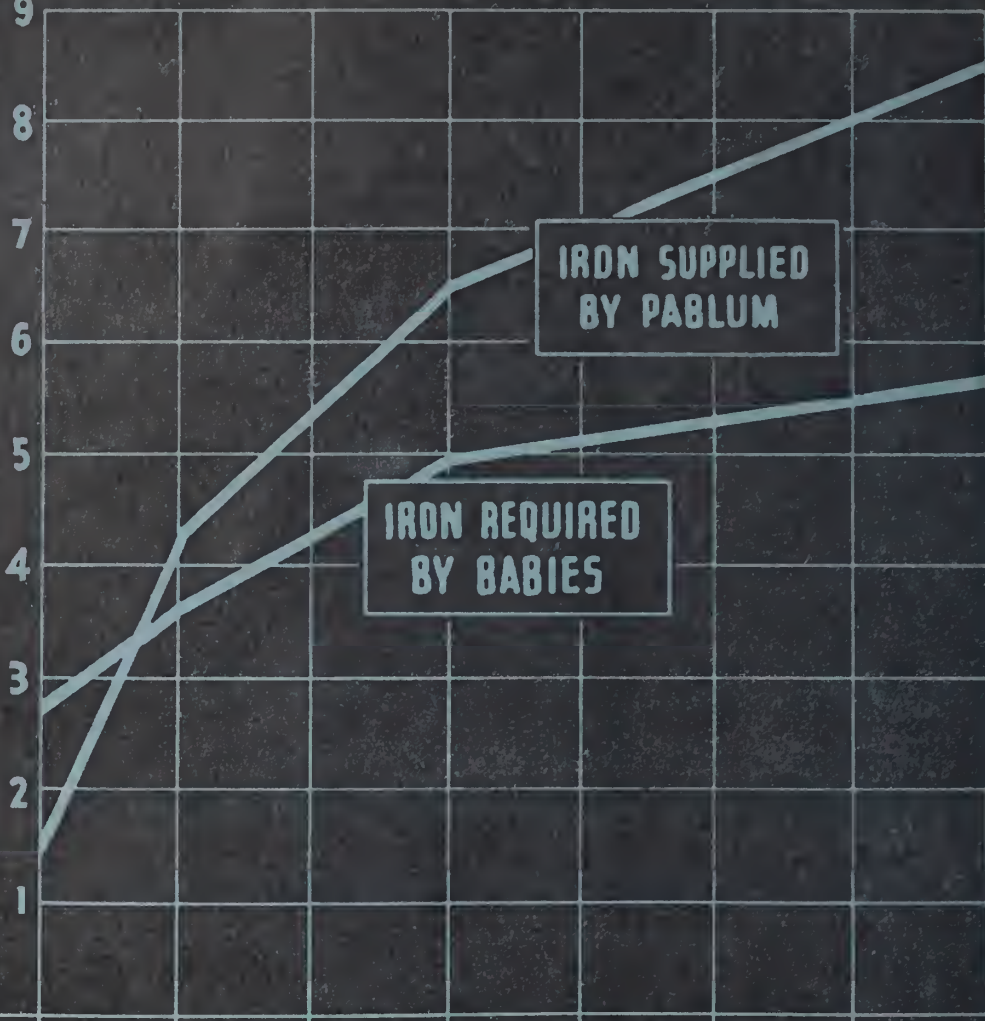
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## CONTENTS

Metycaine as a Caudal Anesthetic in Proctologic Surgery Claude G. Mentzer, M. D., Miami	331
Lobar Pneumonia: A Review of 147 Cases Karl B. Hanson, M. D., and Ralph P. Panzer, M. D., Jacksonville	335
Chemical Cystitis Causing Fibrotic Contraction of Bladder; Treated by Suprapubic Dilatations J. J. Guerra, M. D., Tampa	341
Use of the Wangenstein and Levin Tubes James A. Bradley, M. D., St. Petersburg	344
Management of Major Injuries, Frank D. Gray, M. D., Orlando	346
Treatment of Minor Injuries T. H. Bates, M. D., Lake City	349
Editorials: Our New Governor; First Annual Medical Meeting of the National Foundation for Infantile Paralysis; Ir- regular Practitioners to be Investigated	353
Basic Science Law Found Constitutional in Arkansas	355
Medical Licenses Granted	356
Marriages and Deaths	356
State News Items	356
Component County Societies	358
Index to Advertisements	362
Woman's Auxiliary	364
Advertisers' Notes	366
State and Sectional Meetings	369
Component Societies by Districts	370

## NEXT SESSIONS

American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, St. Louis, November, 1941

Entered as second-class matter under Act of Congress of March 3, 1879,  
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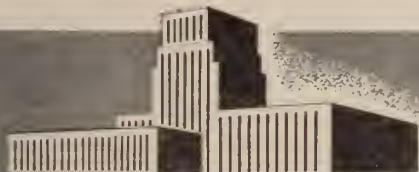
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\*Arch. Otolaryng. 17:787, 1933



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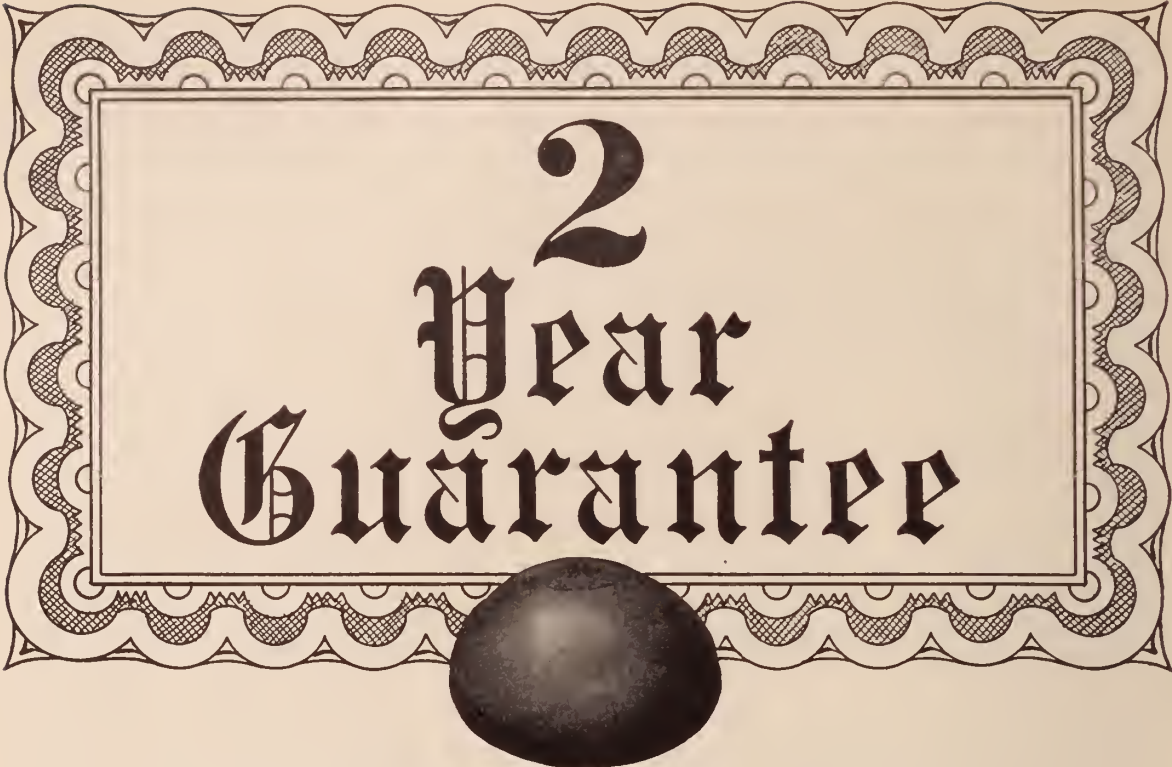
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## METYCAINE AS A CAUDAL ANESTHETIC IN PROCTOLOGIC SURGERY

A REPORT OF 100 CASES

Claude G. Mentzer, M. D.  
Miami

The purpose of this report is to call attention to the efficacy of metycaine as a caudal anesthetic in proctologic surgery. Caudal anesthesia is produced by the injection of an anesthetic solution into the sacral canal through the sacral hiatus. This solution produces anesthesia by its action on the extradural portion of the sacral nerves traversing this canal.

A review of the literature disclosed that the use of this relatively old method of producing anesthesia is not prevalent, despite its simplicity, safety and efficiency. It is difficult to reconcile the comparative obscurity of this method with its obvious advantages. First, it produces complete relaxation similar to that of spinal anesthesia and has the added advantage of being much safer, sparing the patient the postoperative headaches and certain nervous sequelae that sometimes follow the use of spinal anesthesia. Second, its advantages over local anesthesia are that the relaxation is more complete, the tissues are not distorted, and it can be given when there is an infective process about the anus. Third, it can be given to patients who are poor surgical risks when a general anesthetic is contraindicated. Fourth, adrenalin can be added to the solution with the advantage of prolonging the anesthesia and without the fear of postoperative bleeding as sometimes happens when adrenalin is added to a local infiltration solution. Fifth, the level of anesthesia obtained is adequate for all proctologic surgery and for many procedures in the genito-urinary, gynecologic and obstetric fields.

The relative obscurity of this type of anesthesia is probably due to a misconception as to the technical difficulties, the apparent long time for induction and the unreliability of the anesthetic agents previously used. First, in respect to technical difficulties, in 103 out of 105 cases

in which the patients were scheduled for caudal anesthesia, the sacral canal was entered by seven different physicians with no previous experience with this method. Metycaine was injected in all but 5 of these cases, and this group of 100 forms the basis of this report. In 3 of the 5 cases not included in this series, the caudal canal was entered, but because spinal fluid was obtained in 2 and blood in the third, no metycaine was injected. In the fourth case, the sacral canal was apparently closed by calcification. The fifth patient was an obese woman in whom the canal was not located. Second, the induction time for metycaine averaged 11.6 minutes (table 3), in contrast to from 15 to 20 minutes for novocain.<sup>1</sup> Third, metycaine produced perfect anesthesia in 90 of the 100 cases and partial anesthesia in the other 10.

Until recently, the most satisfactory anesthesia for caudal block was novocain, as stated by Hirschman<sup>2</sup>, Yeomans<sup>3</sup> and Buie<sup>4</sup>, but metycaine has now proved its superiority in most respects. It meets almost every qualification for a perfect local anesthetic, as formulated by Braun<sup>5</sup>:

One, the drug must produce a diffusible, complete and lasting anesthesia; two, following systemic absorption it should be less toxic than cocaine in proportion to its anesthetic power; three, it should not produce irritation and painful infiltration or cause local tissue damage but should be absorbed without aftereffects, such as hyperesthesia, exudation or necrosis; four, it should be soluble in water, and its solution should be stable; five, it should be readily sterilizable by heat, preferably in solution; and, six, unless more powerfully anesthetic, and at the same time, less toxic than any known substance, the substance should be compatible in solution with adrenalin.

Metycaine, benzoyl-gamma—(2 methyl-piperidino)—propanol hydrochloride, is an anesthetic drug related to procaine. The work of Rose, Coles and Thompson<sup>6</sup> on animals demonstrated that it is much less toxic than cocaine and only slightly more toxic than novocain when given subcutaneously. Meeker<sup>7</sup> and Woodbridge<sup>8</sup> showed metycaine to be effective and safe as a local anesthetic in humans. More recently, Reuther<sup>9</sup>, in 1938, reported a series of 20 cases in which 2 per cent metycaine was used caudally with 100 per cent effective anesthesia without complications in comparison to 45 per cent effective anesthesia in 20 cases using a 2 per cent alkaline solution

Read before the Sixty-Seventh Annual Meeting of the Florida Medical Association, held in Tampa, April 29, 30, and May 1, 1940.

of novocain. Ferguson<sup>10</sup> had similar results. Tuohy<sup>11</sup> reported a series of 667 cases in which 1 per cent metycaine was given with excellent results to produce a combined caudal and transsacral anesthesia. He found that metycaine produces anesthesia in half the time of novocain, lasts twice as long and is also antiseptic in action.

The following report supports the claims of the advantages which metycaine possesses over novocain as a caudal anesthetic. The information in this report is derived from a study of the 100 cases of this series, seen on the proctologic service of the Jackson Memorial Hospital between February 22 and November 14, 1939. These proctologic operations were performed under caudal anesthesia produced by metycaine and were for the conditions shown in table 1.

TABLE 1.—DISTRIBUTION OF PROCTOLOGIC CASES OPERATED UPON UNDER CAUDAL ANESTHESIA, USING METYCAINE.

1. Hemorrhoids (all varieties) ..	23
2. Anal fistulas .....	16
3. Anal fissures, (ulcers) .....	16
4. Abscesses (all varieties) ....	14
5. Cryptitis, papillitis, pectinosis ..	12
6. Biopsies .....	5
7. Concealed rectal prolapse .....	4
8. Pruritus ani .....	2
9. Lymphogranuloma venereum ..	2
10. Examination .....	1
11. Rectal carcinoma (fulguration) ..	1
12. Condyloma acuminatum .....	1

*Preoperative Preparation.*—In considering the preparation of the patient for caudal anesthesia, the importance of preoperative sedation cannot be overstressed. Adequate sedation, plus a block anesthesia of the sacral nerves, produces the perfect anesthesia, which, according to Buie,<sup>4</sup> is characterized by freedom from fear, mental and muscular relaxation, adequate exposure and complete anesthesia. Preoperative sedation in this series consisted of 1½ grains of nembutal given orally and from ¼ to ½ grains of pantopon administered hypodermically.

Almost all of these proctologic procedures were carried out with the patient in the prone position. The site of the primary wheal and

the perianal region were prepared with alcohol and tincture of merthiolate. Just before anesthetization, most of the patients received ⅜ of a grain of ephedrine sulfate.

*Technic of Caudal Anesthesia.*—The technic of locating the sacral hiatus is relatively simple and is adequately described by Buie<sup>4</sup>, Yeomans<sup>3</sup>, Reuther<sup>9</sup> and others. In obese subjects, however, its location is sometimes difficult to determine. The method described by Haines, Mumey and Faber<sup>12</sup> is extremely valuable as the sacral cornua in these patients cannot usually be palpated as a landmark. An imaginary equilateral triangle is drawn, the base of which joins the two posterior superior spines, seen as dimples in the obese. The apex of this triangle, pointing caudad, then marks the site overlying the sacral hiatus (Fig. 1).

The anesthetic solution is made by diluting a 5 cc. ampule of 20 per cent metycaine to 100 cc. of solution with warm (100 F.) normal saline. Seven minims of adrenalin hydrochloride, 1:1000, are then added.

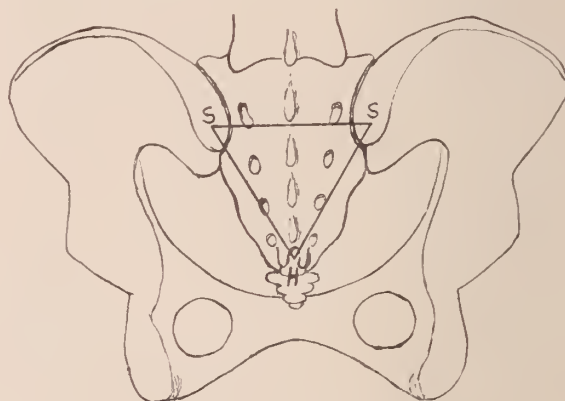


FIG. 1.—METHOD OF LOCATING THE SACRAL HIATUS

S - Posterior superior spines  
(seen as dimples in the obese)  
H - Sacral hiatus  
SSH - Equilateral triangle

A local wheal of this anesthetic is made with a fine hypodermic needle over the site of the sacral hiatus and a spinal needle pushed through the sacrococcygeal membrane into the sacral canal a distance of from two to four centimeters. A careful test is made to determine whether blood or spinal fluid can be withdrawn through the needle. If not, the solution is slowly injected. An average time of four minutes is required to complete the injection.

*Quantity of Metycaine Used.*—A greater quantity of metycaine solution was used in the earlier cases of the series than in the later ones.



The most effective dosage was found to be 45 cc.

In table 2 the amounts used and the number of patients receiving each amount are listed.

TABLE 2.—QUANTITIES OF METYCAINE USED.

No. of Patients.	Amts. 1% Metycaine Solution
1 .....	65 cc.
14 .....	60 cc.
15 .....	50 cc.
38 .....	45 cc.
1 .....	30 cc.
31 .....	not tabulated

*Anesthetic Induction Time.*—The length of time required to produce anesthesia was computed from the time the injection was first started. The time consumed for injection varied from three to six but averaged four minutes. The quantity and the rate of injection did not apparently affect the rapidity of the onset of anesthesia. Motor anesthesia was usually present by the time the metycaine was injected. Occasionally sensory anesthesia was complete on one side ahead of the other. Table 3 indicates the variation in the time required to complete anesthesia.

TABLE 3.—ANESTHETIC INDUCTION TIME.

Shortest time .....	3 minutes
Longest time .....	25 minutes
Average time .....	11.6 minutes
Not tabulated .....	22 cases

*Discussion.*—A reliable anesthetic producing a satisfactory percentage of anesthesia in a relatively short time has been found in metycaine. In this series of 100 cases, perfect anesthesia was obtained in 90 per cent and partial anesthesia in the remaining 10 per cent. The partial anesthesia varied from motor paralysis in all to unilateral and sometimes three-fourths complete anesthesia in others. Three of the ten had had perfect anesthesia at a previous operation within two weeks. No definite cause for failure can be given. No doubt, in these latter cases, the anesthesia would have been complete if more time had been allowed before a supplementary anesthetic was given.

The short time necessary to produce anesthesia, an average of 11.6 minutes in this

series, was used to an advantage. Since the patient was in the prone position and had been draped for both anesthesia and operation, no time was lost. An average of four minutes was used for injecting the anesthetic. As the patient is always re-examined before the operation is started, examination was possible during this period because motor anesthesia is present as soon as the solution is injected. Following this re-examination, 80 of the 100 patients were given an injection of anucaine, an anesthetic soluble in oil. As this analgesic has a delayed action, it played no part in the time factor of sensory anesthesia produced by metycaine.

Reactions attributable to the anesthetic occurred in 15 patients. They were chiefly due to a fall in blood pressure, the average for the series being 11 mm. Hg, and the symptoms occurring were nausea and occasional vomiting. Most of these 15 patients did not have the usual injection of ephedrine before the administration of metycaine. These symptoms according to Perry<sup>1</sup>, are produced by an intoxication due to the escape of the anesthetic into the blood stream. Blood coming back through the needle is proof that the needle is in the sacral canal, but is also a contraindication to injection of the anesthetic, at least until the needle is moved and blood does not return. Berry<sup>18</sup> reported that 38 per cent of a series of 165 patients reacted to novocain in the form of a fall in blood pressure, nausea, vomiting and other symptoms; he attributed these reactions to the paralytic action of the novocain on the sympathetic nerves. He believed the rise in blood pressure in 10 per cent of the cases of his series was due to intoxication with procaine. From these figures it appears then, that metycaine is a safer drug than novocain for caudal administration.

The anesthetic level obtained by this form of anesthesia was always high enough for proctologic surgery. For other fields of surgery the determination of the upper level is more important. The area of anesthesia was checked in 6 cases in this series and was found to be the so-called saddle type; the area anesthetized was the same whether 45, 50 or 60 cc. of metycaine was administered. Subsequent to this series, 20 cc. of a 2 per cent solution of metycaine has been used, and it gives the same

level of anesthesia.

The length of the period of anesthesia was checked in 6 cases in which adrenalin had been added to the solution; it was found to be about two hours. In the only case in which it had not been added the anesthesia lasted one hour. Partial analgesia lasted for some time afterward, further indicating the use of this method. In this series, there occurred no abrupt cessation of anesthesia with occasional hyperesthesia, which is sometimes experienced with the use of intraspinal injections of novocain.

#### SUMMARY

1. Metycaine, used as a caudal anesthetic, produced perfect anesthesia in 90 per cent of 100 proctologic cases and partial anesthesia in the remaining 10 per cent.
2. Anesthesia was complete in an average of 11.6 minutes.
3. The technic is simple.
4. The anesthesia is intense and prolonged and wears off gradually.
5. The level of anesthesia produced by this method and agent is high enough to perform any anorectal operation.
6. The only complication was nausea with occasional vomiting which occurred in 15 per cent of the cases. Nausea was less frequent when ephedrine sulfate was given immediately before anesthetization was started.
7. The only contraindication to this method is an infective process over the site of the sacral hiatus.

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#### DISCUSSION

*Dr. Leigh F. Robinson, Ft. Lauderdale:*

Dr. Mentzer has very thoroughly covered his subject and very convincingly demonstrated the superiority of metycaine over novocain as an anesthetizing agent. I hope his paper will be the means of stimulating a more general application of this little used form of anesthesia. The essayist has emphasized its simplicity of technic, its freedom from danger and its high percentage of success in producing anesthesia.

I have used caudal anesthesia for more than twenty years in rectal and genital surgery. My experience, however, has been limited to novocain. The principal objection to caudal anesthesia has been the time element for induction, which with novocain is about twenty minutes. Dr. Mentzer's experience with metycaine definitely rules out this objection, and he also has shown that it is effective longer.

I should like to ask Dr. Mentzer what he did for the failures or partial failures. Did I understand him to say that he instilled a rectal anesthetic in 80 of the 100 cases just following his re-examination? For our failures we have used pentothal sodium and transsacral block. As a matter of fact, our tendency is to combine the caudal injections and transsacral block in our cases. While waiting for the caudal anesthetic to take effect, one has enough time to inject the sacral foramina.

I want to thank Dr. Mentzer for bringing us this most timely paper.

*Dr. C. L. Perry, Miami:*

Dr. Mentzer has ably shown the increased efficacy of metycaine over procaine in caudal anesthesia. The technic of injecting the caudal canal is very simple and easily mastered, and by its use a valuable adjunct is added to the surgeon's armamentarium.

Provided the patient is a suitable subject for local anesthesia, metycaine is ideal for many conditions other than anal surgery. It has been used for urologic conditions including cystoscopic manipulations, fulguration of tumors or ulcers of the bladder, and prostatic resections. In gynecology, the use of caudal anesthesia is almost indispensable in vaginal hysterectomies, vaginal repairs of fistulas and hernias, and other conditions because many of the patients in these cases are not good respiratory or spinal anesthetic risks.

The contraindications for metycaine anesthesia by caudal injection are malformations of the bony sacrum and infectious processes about the sacral hiatus. Reactions to the drug are fewer and of less intensity than with procaine, and proper preoperative sedation, as outlined by Dr. Mentzer, has practically eliminated reactions. I feel that as long as an injection of 40 cc. of 1 per cent solution of the drug will give good quick anesthesia, there is no reason to use stronger solutions in lesser amounts.

While the solution does ascend in the epidural space, as shown by Shaw, it does not produce anesthesia in the higher levels. Shaw believes that reactions made evident by falling blood pressure, bradycardia and weakness are due to a paralytic action on the sympathetic nerves in



the upper lumbar and thoracic segments. It is my belief that these reactions are due to venous absorption through injury to the sacral venous plexus by the caudal needle.

Dr. Mentzer's paper has served a valuable purpose if it renews the interest of more physicians in the use of this simple and efficient anesthetic agent.

#### *Dr. Palmer R. Kundert, Orlando :*

I have enjoyed this excellent paper and have been especially pleased to learn that there have been no serious untoward effects experienced from the use of metycaine in these one hundred cases.

Dr. Orr and I have used metycaine intraspinally in fifty cases. In these fifty cases cord bladders developed in three patients and one also lost control of the anal sphincter.

Needless to say, we have not used metycaine intraspinally for the last five months. We are happy to report that in the interval one patient has completely recovered, and the other two are showing gradual improvement. We have learned recently that a urologist in San Francisco has had three similar experiences. If any one here has seen such complications following the use of metycaine intraspinally, we should welcome the opportunity to compare notes.

#### *Dr. C. D. Rollins, Jacksonville :*

I wish to discuss this paper from the viewpoint of its application in obstetrics. I have had considerable experience with caudal anesthesia in the practice of gynecology and obstetrics. The knowledge that the period of local anesthesia is much lengthened with the use of metycaine should stimulate interest in some of our obstetricians to try this anesthetic again in childbirth.

Some years ago I wrote a paper on painless childbirth and the basis of that paper was some experiences I had with caudal anesthesia in labor.

I used naupercaine solution to inject the caudal canal. The short duration of the anesthesia made it unsatisfactory, and I finally gave it up. But now with metycaine, one has a much longer period of anesthesia, and this fact suggested to me that there are great possibilities with this drug in labor. With my old drug and its fleeting effect it was hard to have the patient go into the most painful part of delivery at the period when the anesthesia was most profound. It is absolutely true that if the baby happens to be born at the period of caudal block, the birth will be painless. The great difficulty in having the birth coincide with the anesthesia caused me to give up this method.

Now that we can induce anesthesia of the perineal and cervical regions for a period of two hours by injecting metycaine in the caudal canal, it may be possible to effect painless childbirth by this method.

#### *Dr. Mentzer (concluding) :*

Dr. Robinson has asked me to explain the reason for partial anesthesia. I do not know the answer. When we get partial anesthesia we usually supplement it with 1 per cent metycaine used as a local anesthetic.

The oil soluble anesthetic, anucaine, is injected during the induction period. The anesthetic is used for post-operative analgesia, its effect lasting for from one to three weeks.

In our series of cases, the anesthetic level was practically the same in all patients, whether 30, 40, 50 or 60 cc. of the 1 per cent solution of metycaine was used. This may be explained by the more rapid spread of the anesthetic solution laterally along the nerve trunks than through the epidural space upward above the sacral canal.

We feel that caudal anesthesia is safer than spinal anesthesia because the solution is extradural and there is not the chance, therefore, for neurological accidents.

## LOBAR PNEUMONIA A REVIEW OF 147 CASES

KARL B. HANSON, M. D.

AND

RALPH P. PANZER, M. D.

Jacksonville

The purpose of this paper is to evaluate the therapy, morbidity, and mortality of 147 cases of lobar pneumonia occurring in adults. These cases were selected from admissions to the Duval County Hospital from June 1, 1937 to April 1, 1940. The lowest age limit was 13 years. Rigid criteria were fulfilled before a case was included in this series. In 84 cases, the diagnosis was confirmed by x-ray. In a number of instances, cases diagnosed as lobar pneumonia were not included because one could not substantiate the diagnosis by a review of the history and physical examination. All patients who died within twelve hours after admission were not considered since death, in most instances, could not be regarded as a failure of treatment.

It must be remembered that these cases were prepared with the best facilities available at the time the patients were admitted and not for the purpose of presenting them in a scientific study at some later date.

The distribution according to race and sex was as follows: 38 white males; 64 negro males; 20 white females and 25 negro females.

Typing and culture of sputa were done in 80 cases and in only 21 were pneumococci found. These were: type 1, 7; type 2, 2; type 3, 4; type 5, 2; type 8, 2; type 14, 1; group F, 1; and unclassified, 1. We were unable to account for the low percentage of pneumococci present. In 14 cases *Streptococcus viridans* and in 2 cases *Streptococcus haemolyticus* were the predominating organisms. No attempt was made to correlate mortality with the type of pneumococcus. In 82 cases, leukocyte and differential counts were done one or more times.

Particular interest was centered in comparing the effectiveness of various therapeutic agents and the cases have been grouped accordingly.

#### SUPPORTIVE THERAPY

##### *(a) Cures. Beginning with June, 1937,*

From the Department of Medicine, Duval County Hospital.

Read before the Chattahoochee Valley Medical Society, July 9, 1940.



there were 65 consecutive patients treated with the so-called supportive and symptomatic therapy with which we are all familiar. In most instances, this consisted of bed rest, sedatives (usually morphine or codeine), maintenance of adequate fluid balance, and, if necessary, parenteral fluids with glucose and adequate nutrition. Oxygen, when indicated, was given by nasal catheter. Expectorants as well as stimulants, such as caffeine and whiskey, were used. Transfusions were given in cases of anemia.

TABLE I

	Serum	Supportive
Number .....	5	65
Deaths .....	0	27
Mortality .....	0	41.5%
Date of Admission .....		4.1 days
Date Afebrile after Therapy .....		4.8 days
Total Days of Fever .....		8.9 days
Sputa Typed .....	5	6

The distribution according to race and sex was as follows: 14 white males, 32 negro males, 8 white females, and 12 negro females.

Thirty-nine patients recovered, the mortality rate being 41.5 per cent. The average time of onset of illness before admission was 4.1 days. The average date of recovery was 4.8 days after admission. Seventeen patients recovered by crisis.

Complications arising were as follows: pleural effusion, 1; jaundice, 1. No case of empyema was found. In one of these patients pneumonia developed after trauma and in one it occurred postpartum.

(b) *Deaths.* Twenty-seven deaths occurred. The distribution of deaths according to race and sex was: 6 white males (a mortality of 42.8 per cent); 3 white females (mortality, 37.5 per cent); 11 negro males (mortality, 34.4 per cent); and 7 negro females (mortality, 58.3 per cent). In fourteen of the 27 cases post-mortem examination was made. In fatal cases the average time of onset before admission to the hospital was 6.8 days. The complications noted were: (a) 1 case of empyema, 1 of empyema with chronic nephritis, cirrhosis of liver and pericarditis, 1 of empyema associated with lung abscess; (b) 2 of alcoholic delirium; (c) 1 of pleural effusion, 1 of pleural effusion with chronic nephritis; (d) 2 of jaundice and toxic hepatitis; and (e) 1 of mitral stenosis.

#### SERUM

Serum therapy, as routine treatment of the pneumococcal pneumonias, is financially im-

practical at the Duval County Hospital. There was no death among the 5 patients treated with serum. Three of these cases were type 1, 1 was type 2, and 1 was type 7. In one of the type 1 cases, the result of serum administration was dramatic and crisis occurred immediately. In the other 4 cases, the temperature fell by lysis in from 4 to 11 days. No complication occurred. The amount of serum given in several cases might well be regarded as inadequate. The number of patients treated by serum was too small to permit any conclusions whatsoever.

#### SULFANILAMIDE

During the years 1938 and 1939, 31 patients with lobar pneumonia were treated with sulfanilamide. Twenty-two of these patients recovered. The average day of admission after onset of illness was the fourth day. In the average case the patient was afebrile in 5.6 days. In 3 instances, fever dropped to normal within 24 hours. These patients were admitted on the first, fifth and sixth days of illness. Type 8 pneumococcus in the sputum was found in one case, but the pneumococcus was not isolated from the other two. One patient in group F also had an immediate crisis, but on the fifth day fever developed which continued for 7 days. Sulfanilamide therapy was stopped on the sixth day. One patient in group F recovered by lysis in 2½ days. Two patients of type 3 and one of type 14 also recovered by lysis. No complications occurred.

The method of administration of sulfanilamide, in most instances, was grains 20 every 4 hours for 6 doses and then every 6 hours until a therapeutic result was achieved. The same number of grains of sodium bicarbonate were given with the sulfanilamide.

No serious reaction to the drug was noted. Because of severe nausea and vomiting in one case, the drug was discontinued on the fourth day. In one patient cyanosis and delirium developed two days after a crisis-like response to sulfanilamide. In four patients a mild secondary anemia developed with a drop in the hemoglobin to about 60 per cent. A drug rash did not occur in any instance. There were no febrile reactions, no hemolytic anemia, and no agranulocytosis. Determinations of the blood concentration of sulfanilamide were not done.

The distribution of admissions of sulfanilamide-treated patients according to race and sex was: 4 white males, 18 negro males, 4 white females, and 5 negro females.

TABLE II

Number	Sulfanilamide
Deaths	31
Mortality	9
Date of Admission	29%
Date Afebrile after Therapy	4 days
Total Days of Fever	5.6 days
Sputa Typed	9.6 days
	6

*Deaths.* There were 9 deaths, the mortality rate being 20 per cent, in the sulfanilamide group. In this group there were: 2 white females (a mortality of 50 per cent); 6 negro males (mortality, 33.3 per cent); 1 negro female (mortality, 25 per cent). No white male died. Four patients were admitted on the fifth day of illness and one on the seventh day; it should, however, be pointed out that many who recovered were admitted on the fifth and several on the seventh day of illness. The average time of onset before admission was 4 days.

Sulfanilamide was used for 2½ and 6 hours, respectively, in 2 cases in which death occurred within 24 hours of admission. Another patient, who had both bronchial and lobar pneumonia with severe toxemia, was given the drug over a period of 10½ hours before death. With the exclusion of these cases, there was a mortality rate of 21.4 per cent for 28 cases. In not one of these cases was a pneumococcus isolated from the sputum. Six postmortem examinations were performed.

Three patients had consolidation of the entire right lung; in 2 the left upper lobes were involved; in 1, the right lower lobe; in 1, the right middle and lower lobes; in 1, the left upper and lower lobes; and in 1, the right upper and lower lobes and left lower lobe. In one patient pneumonia developed two days postpartum, in the hospital, and she failed to respond to two attempts at sulfanilamide therapy in addition to multiple transfusions. One case was complicated by pyonephrosis and renal calculus and another by cirrhosis of the liver.

#### SULFAPYRIDINE

*Cures.* Forty-six consecutive patients were treated with sulfapyridine during the years 1939 and 1940. Forty-two patients recovered. The average date of onset of illness before admission was 4.3 days for those who recovered. In most instances, an attempt was

made to determine the causative organism by typing and culture of sputum.

In only 4 instances were pneumococci found. These were types 1, 3, 5, and 8. In 8 cases the predominating organism was *Streptococcus viridans*, and in 2 cases it was *Streptococcus haemolyticus*. The distribution of cases according to race and sex was: 17 white males, 15 negro males, 8 white females and 6 negro females.

The method of administration varied little from case to case. The usual regimen was to give 4 grams statim and 1 gram every 4 hours until the patient had been afebrile for 4 days. Then the dose was decreased to 7½ grains every 4 hours. Sulfapyridine, in most instances, was crushed and administered in milk. Now the tablets are so prepared that they quickly form an emulsion with water. Smaller doses of sodium bicarbonate were given with the sulfapyridine.

Determinations of blood sulfapyridine were done in only 5 cases and not routinely, so that no relation between reaction to the drug and its concentration in the blood could be established.

Twenty-one patients were afebrile in 24 hours or less; only 5 had fever longer than 2 days. In 33 cases, recovery was by a crisis-like fall of the temperature to normal. An average patient was afebrile in the remarkably short time of 1.4 days. Absolutely no relation could be established between the time of onset of illness before treatment and the response to the drug. In most instances, resolution of the chest lesions began shortly after the patient was afebrile. Complete resolution often required a week or more.

*Toxic Reactions.* Severe toxic reaction to the drug occurred in only 1 case. This will be discussed in detail because of its interest.

A 17 year old white girl was seen in the medical clinic two weeks prior to the onset of her acute illness. She gave a history of nephritis at the age of 4. The blood pressure was 194 systolic, 130 diastolic. The urinalysis showed a one plus albumin. The white blood count showed the presence of 17 per cent eosinophiles. The stool was positive for hookworm. The hemoglobin was 64 per cent. The impression at that time was that the patient had (1) chronic nephritis, (2) secondary anemia, (3) hookworm infestation. She was



admitted to the hospital and on the same day she had a productive cough, fever, chill, and pain in the right chest. Physical examination and roentgen study revealed a lobar pneumonia of the right lower lobe. The white blood count was 16,900; the sputum was negative; the blood culture was sterile.

Sulfapyridine, grains 30, and sodium bicarbonate, grains 15, were given statim and sulfapyridine, grains 15, with sodium bicarbonate, grains 10, were given every 4 hours. She became cyanotic and had severe nausea with occasional vomiting. Intravenous glucose in distilled water was given. She made a definite clinical improvement and the temperature became normal in 36 hours. The temperature rose again in 3 days, or after  $4\frac{1}{2}$  days of drug therapy, and it reached 104 F. on the fifth day, accompanied by increasing dyspnea. The concentration of sulfapyridine in the blood at that time was 14.6 milligrams. On the sixth day a generalized morbilliform rash developed and sulfapyridine was discontinued. Urinalysis was negative for blood, but showed a 3 plus albumin. The leukocyte count was 17,000. One thousand cubic centimeters of 10 per cent glucose was given intravenously three times daily. On the ninth day of hospitalization, the blood nonprotein nitrogen was 132 milligrams and the creatinin was 2.7 milligrams. Two days after the drug was discontinued the sulfapyridine blood level was 6.6 milligrams, despite the large amount of fluid which had been given. From 4,000 to 5,000 cubic centimeters of fluids were given daily and on the sixteenth day of hospitalization the nonprotein nitrogen was 105 milligrams and the creatinin was 3 milligrams. On the twenty-fourth day the nonprotein nitrogen was 95 milligrams, and the creatinin was 2.3 milligrams. At that time, the patient was symptom-free.

This case illustrates retention of sulfapyridine by a patient suffering from chronic nephritis with marked elevation of the nonprotein nitrogen. This case is an example of afebrile and skin reaction to sulfapyridine. Chronic nephritis is not a contraindication to sulfapyridine therapy, but constant vigilance must be maintained. It is interesting to note that certain authors have reported many cases in which the patient, without any other evidence of impaired renal function, had an increase in nonprotein nitrogen of about 10 milligrams under sul-

fapyridine therapy.

Two patients were thought to have had a sulfapyridine psychosis. One, a 45 year-old negro man, became irrational on the fourth day after admission and the third day after his crisis. The drug was not discontinued. Sedatives were given; and thiamin chloride, 3 milligrams, was given intramuscularly three times daily for two days. The patient's mental disturbance cleared in 36 hours. A 37 year old white man, 2 days after crisis, became irrational. The drug was not discontinued. The blood concentration of sulfapyridine was 5.3 milligrams. The patient made a spontaneous recovery from the mental disturbance in one day.

The majority of patients treated with sulfapyridine had nausea and vomiting, but in no instance was this condition severe enough to cause the drug to be discontinued. Various methods were used to combat this reaction. The drug was given crushed in milk. In many instances, it was given with elixir of lactated pepsin. Nicotinic acid was used, as this agent has been suggested to relieve nausea in sulfanilamide therapy. Intravenous glucose was given. The last-named method probably was the most successful, but the aforementioned efforts were not of much avail. Intravenous sodium sulfapyridine, which was used for patients with illness other than pneumonia at the Duval County Hospital, caused nausea and vomiting. It has been reported in the literature that large amounts of the drug can be found in the stomach after intravenous administration. It has not been settled whether the nausea and vomiting are reactions of the central nervous system.

No case of hemolytic anemia, agranulocytosis, toxic hepatitis, renal calculus, or hematuria was found.

In one case, the hemoglobin dropped from 88 per cent, or 14.73 grams, to 47 per cent, or 8.3 grams, on the fourth day of hospitalization. Transfusions were given, and the drug continued. The patient recovered.

*Complications.* Empyema occurred in two cases. In one case the patient, when admitted on the sixth day of illness had a temperature of 103 F. The temperature fell to normal 48 hours after treatment with sulfapyridine was started. Then the temperature gradually rose despite drug therapy. Surgical



drainage of the empyematic fluid was employed and the patient recovered. *Staphylococcus albus* and *Streptococcus viridans* were isolated from the fluid. In another case empyema occurred in a white man who had aortic insufficiency. This patient, who had been receiving treatment for cardiac failure in the medical clinic, was admitted to the hospital on the third day of illness. The temperature fell to normal within 18 hours after sulfapyridine therapy was instituted. Twelve days after admission he had a low-grade fever. Aspiration of the chest on two occasions produced purulent fluid. Although no definite organism was isolated from the sputum, a gram positive diplococcus was found in the smear of the empyematic fluid. This organism failed to grow on culture. Surgical drainage was done and the patient recovered. A marked secondary anemia developed two weeks after admission for which he was given iron and transfusions. The cardiac disease was treated with digitalis and sedatives.

There were two cases of pleural effusion. A 21 year old white woman was admitted on the second day of illness. The temperature fell to normal in 48 hours, but quickly rose again and remained elevated for three days. The sputum contained *Streptococcus viridans* but no pneumococci. On the twelfth day there was again a decided elevation of temperature. The blood concentration of sulfapyridine at this time was 5.9 milligrams. Nine hundred cubic centimeters of cloudy fluid were removed from the left pleural cavity and *Staphylococcus albus* was isolated from this fluid. A secondary anemia of 60 per cent hemoglobin was treated with iron and a blood transfusion.

The other case of pleural effusion was that of a 48 year old negress who had been receiving treatment in the medical clinic for congestive heart failure. She was admitted on the first day of illness. Aspiration of the right side of the chest produced 500 cubic centimeters of cloudy yellow fluid. Hemolytic streptococci were isolated from this fluid. Roentgen study showed a lobar pneumonia of the right lower lobe and a large pericardial effusion. No attempt was made to aspirate the pericardial effusion because it, apparently, did not cause any cardiac embarrassment. Sulfapyridine caused a fall by lysis of the temperature to normal in 6 days. A marked anemia developed.

Sulfapyridine was discontinued after 12 days of treatment. Three days after the drug was discontinued, the temperature was 101 F. The patient was given blood transfusions and sulfapyridine was again administered after which the temperature rapidly fell to normal where it remained.

TABLE III

	Sulfapyridine
Number	46
Deaths	4
Mortality	8.7%
Date of Admission	4.3 days
Date Afebrile after Therapy	1.4 days
Total Days of Fever	5.7 days
Sputa Typed	4

*Deaths.* There were 4 deaths, or a mortality of 8.7 per cent in the 46 cases treated with sulfapyridine. The distribution of deaths according to race and sex was: 1 white male, 2 negro males, and 1 white female. There was no death among the six negro females treated. We will discuss these deaths in detail in an effort to determine the cause of failure of drug therapy.

One death occurred in a 71 year old white woman who was admitted to the hospital in a semicomatose condition, suffering from uremia, with a nonprotein nitrogen of 78 milligrams and a creatinin of 2.7 milligrams. A urinalysis showed a 4 plus albumin and numerous red blood cells. Physical examination revealed a consolidation of the left lower lobe. The white blood count was 32,000. No sputum examination was reported. Parenteral fluids were given. Sulfapyridine was given with an initial dose of grains 30 followed by grains 15 every 4 hours. Death occurred 29 hours after admission.

The second death occurred in a 43 year old white man who was admitted 4 days after an acute onset of pain in the chest, fever, and a productive cough with a blood-tinged sputum. The patient had received a severe blow on the chest 4 days prior to the onset of the present illness, which was not considered at the time to be a causative factor. The patient was stuporous, cyanotic, and extremely toxic on admission. There was a left lower lobar pneumonia. The white blood count was 7,000; the blood culture was negative. No sputum was obtained. Sulfapyridine was given for the first 4½ days of hospitalization with no response. The patient died on the thirteenth day.

The third death was that of a 49 year old negro man who had been ill for 4 days. The

TABLE IV

TOTAL CASES 147	SEX AND RACE: NEGRO: Females 25, Males 64 WHITE: Females 20, Males 38		TOTAL CASES X-RAYED 84	
	SERUM	SUPPORTIVE	SULFANILAMIDE	SULFAPYRIDINE
Number	5	65	31	46
Deaths	0	27	9	4
Mortality	0	41.5%	29%	8.7%
Date of Admission		4.1 days	4 days	4.3 days
Date Afebrile after Therapy		4.8 days	5.6 days	1.4 days
Total Days of Fever		8.9 days	9.6 days	5.7 days
Sputa Typed	5	6	6	4

patient was extremely toxic and cyanotic and had severe abdominal distention. There was a bilateral lower lobar pneumonia. The sputum contained hemolytic streptococci but no pneumococci. The white blood count was 8,050; urinalysis showed a 3 plus albumin. Sulfapyridine was given grains 30 statim and grains 15 every 4 hours. Nasal oxygen was started immediately and intravenous glucose also was given. The abdominal distention was combated with enemas and pitressin. The patient died 48 hours after admission. The postmortem examination confirmed the diagnosis of bilateral lower lobar pneumonia.

The fourth death occurred in a 29 year old negro man who was admitted on the third day of illness. Examination revealed a left lower lobar pneumonia. The blood culture was negative; the sputum contained nonhemolytic streptococci but no pneumococci. Sulfapyridine was given grains 60 statim and grains 15 every 4 hours. Glucose in normal saline solution was given by hypodermoclysis. Within 36 hours the temperature was normal, but the patient did not appear clinically improved. The temperature stayed normal 16 hours and then suddenly rose to 102 F. The patient died 52 hours after admission. The postmortem examination showed a complete consolidation of the left lung with areas of lobular pneumonia in the right lung. It is possible that death was caused by a spread of the pneumonia which occurred despite sulfapyridine therapy.

Assuming that in the last two cases the patients had specific pneumococcal pneumonia, it is interesting to speculate whether they could have been saved with serum. It is possible that the intravenous administration of sodium sulfapyridine on admission might have been a life-saving measure. In not one of these cases was a blood sulfapyridine determination done, so one cannot tell if satisfactory concentrations of the drug were secured.

There was noted a comparative mortality rate of: (a) 41.5 per cent for 65 patients receiving only supportive measures, (b) 29 per cent for 31 treated with sulfanilamide, and (c) 8.7 per cent for 46 treated with sulfapyridine. Although the number of cases in each group is small, we think it can be definitely concluded that sulfapyridine is by far the most effective of the three in the treatment of lobar pneumonia.

#### SUMMARY AND CONCLUSION

One hundred forty-seven cases of adult lobar pneumonia admitted to the Duval County Hospital during the period from June 1, 1937 to April 1, 1940 have been reviewed. The number of cases treated with serum is considered too small for any conclusions to be made.

Sulfanilamide seemed to be curative in several cases and to cause a lowering of the mortality rate which may or may not be significant.

Patients receiving only supportive therapy were febrile for an average of 4.8 days after arrival, and the average total duration of illness was 8.9 days. Those receiving sulfanilamide were febrile for an average of 5.6 days after admission and had a total of 9.6 days of illness, which is hardly an appreciable difference from the results obtained with supportive treatment. The patients treated with sulfapyridine were febrile for an average of 1.4 days after admission and the average total duration of fever was 5.3 days.

Only 3 of the patients treated with sulfanilamide recovered by crisis within 24 hours, while 21 of those on sulfapyridine were afebrile in 24 hours.

It can not be stated from this group of cases that chemotherapy lowered the incidence of complications, but it is to be noted that 3 patients with empyema who received only supportive measures died, while 2 who received sulfapyridine together with surgical drainage recovered.

Severe toxic reactions to chemotherapy occurred in only 1 case. The patient was a young woman with chronic nephritis in whom sulfapyridine caused a febrile reaction, a rash, and the retention of nitrogenous substances. Chronic nephritis, we believe, is no contraindication to sulfapyridine, provided frequent blood determinations of sulfapyridine concentration are done and the patient is watched closely for toxic reactions.

Sulfapyridine seemed lifesaving in 2 cases of congestive failure with lobar pneumonia. We believe that all patients with lobar pneumonia should have their sputum typed so that type specific serum and sulfapyridine may be given in certain selective cases. This might further lower the mortality rate.

The routine determination of the concentration of sulfapyridine in the blood 12 hours after the oral administration of the drug would give a more accurate control of the therapy. It would also indicate cases in which intravenous sodium sulfapyridine should be used to secure adequate blood concentration. We believe that this concentration should be approximately 6.0 milligrams of free sulfapyridine per 100 cubic centimeters of blood.

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# CHEMICAL CYSTITIS CAUSING FIBROTIC CONTRACTION OF BLADDER: TREATED BY SUPRAPUBIC DILATATIONS

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The purpose of this communication is not to present a long discussion of the various types of cystitis and their treatment, but merely to describe a new procedure used in a case of fibrotic contracted bladder caused by self-intravesical instillations of strong chemicals for a gonorrheal infection. The literature is replete with excellent classifications, descriptions and methods of treatment of cystitis; however, in order to present this paper intelligently we must briefly review the surgical treatments for this condition, as all the other procedures left the patient unimproved or showing only very slight improvement.

The surgical treatments described by Hager<sup>1</sup> are:

- a. Topical applications.
- b. Electrocoagulation of specific lesion.
- c. Bladder rest:

1. By indwelling urethral catheter (continuous irrigation).

2. Cystostomy.

There are a small group of bladder infections which require surgery for relief. Some are acute and fulminating, others are chronic and of long standing. Both are greatly benefited, if not cured, by putting the bladder at rest. Other major surgical operations applicable to the relief of persistent and painful cystitis are neurosurgery and the transplantation of the ureters into the colon or skin.

## REPORT OF CASE

J. L. P., aged 23, male, white, married and childless with wife living and well, was readmitted to the hospital on Jan. 3, 1939, for the ninth time, having also been in another hospital twice for the same condition. The chief complaints were pain in the region of the bladder, nocturia every fifteen to thirty minutes, dribbling, and spasms of the bladder every thirty minutes. He was wearing a urinal because of constant urination.

*History.*—The patient stated that in 1933 he had contracted a gonorrheal infection and, instead of consulting a physician, had obtained what he described as a white medicine and some pills from a druggist with which he had treated himself for four weeks. Later he had continued the treatment with potassium permanganate and claimed that the discharge had stopped for approximately four weeks and then had begun again. On the advice of a friend he had next instilled a mixture of kerosene and potassium permanganate into his bladder for a period of about three or four weeks. Soon he had begun to have



Fig. 1. A cystogram, made on last admission of the patient in January 1939, revealed a contracted bladder of two-ounce capacity. Pain was felt even though spinal anesthesia had been used and the bladder dilated with two ounces of fluid.





Fig. 2. A forty-five minute film of an intravenous pyeloureterogram carried out in 1934. It revealed bilateral dilatation of the calices, pelvis and ureters, and a greatly contracted bladder.

painful urination and terminal hematuria, but had continued the treatment thinking, as he said "that I was getting below the surface and curing the infection."

This self-medication had continued for a year until he found himself in such a critical condition that he had reported to the hospital for treatment the first time on June 19, 1934. From June to December the patient was admitted to a local hospital three times. From December, 1934 to September, 1935 he was admitted twice to a hospital in Washington, D. C., and then again, from October, 1935 to June, 1939 he was admitted to a local hospital five times.

**Examination.**—On admission, the physical examination of the patient gave negative results except for tenderness on palpation in the anterior lower portion of the mid-abdomen. His blood pressure was 126/70. Rectal examination revealed the sphincter of good tone and the prostate small, smooth and firm. There was no bulging of the seminal vesicles.

**Laboratory findings.**—Urinalysis on January 4 showed an alkaline reaction, specific gravity 1007, albumin one plus and pus cells one per high power field. Examination of the blood gave the following result: hemoglobin 86 per cent, erythrocytes 4,300,000, leukocytes 6,100, polymorphonuclears 50, lymphocytes 36, monocytes 1, eosinophils 12, basophils 1, nuclear index 4 and color index 1. The Kahn test gave negative results as did examination of the stool. A culture of the urine showed colon bacilli.

**Cystoscopic Examination.**—With the patient under spinal anesthesia instrument No. 24 was passed with considerable difficulty. The mucosa of the bladder was thick, swollen and irregular; the normal capillary net-

work of vessels could not be seen. There were no stones, tumors, nor diverticula; ureteric orifices appeared normal in position but large in size and gapping. The capacity of the bladder was two ounces; there were definite spasms at the neck, as could be felt by the gripping on the instrument.

**Cystography.**—A cystogram (Fig. 1) revealed a contracted bladder with a two-ounce capacity. This slight dilatation, even under spinal anesthesia, was painful to the patient.

**Diagnosis.**—A diagnosis of fibrotic contracted bladder (chemical), fibrotic prostate with obstruction of the neck of the bladder, and urethral stricture was made.

**Review of Previous Admissions.**—A review of the past history and previous admissions of the patient revealed that in 1934 a pyeloureterogram (Fig. 2) showed bilateral dilatation of the calices, pelvis and ureters, and the bladder greatly contracted. In the pyeloureterogram of 1936 (Fig. 3) improvement of the hydronephrosis and contracted bladder was shown but the original symptoms persisted. The cystogram of that date (Fig. 4) demonstrated the reflux to the ureters (kidneys) on an attempt to dilate the bladder.

**Treatment.**—In view of the history, the treatments carried out during previous admissions and the obvious danger to the ureters and kidneys of further dilatations either by syringe or gravity method, it was decided to do a suprapubic cystostomy. This operation was done under local anesthesia on January 18. The bladder was contracted, its wall very thick, and the prostate firm; on palpation of the neck of the bladder a definite spasm was felt. A mushroom catheter was inserted after suture of the bladder to the fascia, and the wound was closed in layers.

The patient continued to have spasms of the bladder,



Fig. 3. This forty-five minute film of an intravenous pyeloureterogram, taken in 1936, revealed a contracted bladder and dilatation of the calices and pelvis, but also demonstrated a considerable degree of improvement over the condition two years previously shown in Figure 2.

needing morphine frequently to control the pain. The mushroom catheter had to be removed as it was causing considerable pain, but even without the tube the pain and spasms continued. It seemed that the operation had not helped the condition.

As the patient was a young man, I hesitated to resort to neurosurgery or ureteral transplant. The thought occurred to me that the bladder could be dilated suprapubically, without causing damage to the ureters or kidneys, by means of a rubber bag inserted through the suprapubic wound into the bladder and then dilated with water, which in turn would dilate the bladder. Accordingly, on February 7, after an anesthetic of gas and ether had been administered to the patient a rubber bag was inserted into the bladder through the suprapubic wound and filled with seven and one-half ounces of water. At this time no more water was instilled because of the danger of dilating too rapidly. The bag was held in the bladder for twenty minutes and then removed. The patient had severe pain for from four to five days, but stated that he felt a little better even though there was considerable pain in the neck of the bladder and added that he thought if the prostate were removed he would get well.

On February 22 the procedure just described was repeated and this time twelve ounces of water were instilled into the bag. The urethra was dilated up to 32 Fr., and, since the spasms still persisted at the neck of the bladder, a V-shaped section of the neck was removed with a loop. The section measured 2 by 8 mm., showed no epithelial covering and was fibrous, edematous, vascular and infiltrated with many lymphocytes and plasma cells and a few polymorphonuclears. The pathologist's diagnosis was that of fibrotic tissues resulting from an inflammatory process.

Following this second operation the patient improved.



Fig. 4. A cystogram, taken in 1936 when the bladder was dilated, showed the reflux of opaque media to the ureters and also a filling of the posterior urethra.



Fig. 5. A cystogram taken on Feb. 13, 1940, thirteen months after the last admission to the hospital, demonstrated the result of treatment by suprapubic dilatation. The bladder had become normal in contour and of average size. Twelve ounces of opaque media were instilled without causing pain or reflux to the ureters.

The pain and spasms were now mild, and there was no need of opiates. Since a culture of the urine had revealed colon bacilli (*Escherichia acidilactici*), it was thought that part of the irritation still present might be due to this infection. The patient was given mandelic acid and placed on a acid ash diet for two weeks. Although this treatment helped and there was considerable improvement, the symptoms did not completely disappear.

On March 27 the bladder was again dilated and fourteen ounces of fluid instilled into the bag. The wall of the bladder was of normal thickness and smooth, and palpation of the neck of the bladder indicated the absence of spasms. After this last dilatation the patient improved rapidly and would go for hours without pain. The suprapubic wound was allowed to heal, and no further medication was carried out. On April 19 the patient was able to void, and the wound was completely closed. He was feeling very much better, although he had frequency of urination and nocturia once a night. The spasms had disappeared, and there was no burning on urination. He now had full control of the bladder and passed as much as twelve ounces of urine.

The patient was discharged from the hospital on April 23. On May 1 he complained of nocturia once. On July 11 he was without pain, frequency of urination and nocturia; he had full control of the bladder and was able to retain from twelve to fourteen ounces of urine. When last seen on Feb. 13, 1940, he was comfortable, and all symptoms had disappeared. A cystogram (Fig. 5) of this date revealed that the bladder was of normal contour, average in size and without deformities. Twelve ounces of opaque media were instilled without causing pain or discomfort.



## SUMMARY

In this case the bladder was dilated suprapubically, the urinary infection was treated with mandelic acid, a V-shaped section was removed from the neck of the bladder to relieve the obstruction and the urethra was dilated. However, after observing closely the history and progress of the patient, I am convinced that complete recovery was not possible without dilatation of the bladder as shown by the fact that the cystostomy did not relieve the symptoms. Suprapubic dilatation is a simple procedure that should be used in obstinate cases of contracted bladder.

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*First National Bank Bldg.*

## USE OF THE WANGENSTEEN AND LEVIN TUBES

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We have come, through experience, to have great respect for the Levin tube as an instrumental aid in the cure and comfort of the extremely ill, as well as for certain diagnostic procedures. It was first described by Levin<sup>1</sup> in 1921 and is a urethral catheter type of tube, 45 inches or more in length, with markings 18, 22, 26, and 30 inches from the tip. It is obtainable in sizes twelve, fourteen, sixteen and eighteen French gauges.

The Wangenstein tube is similar to a Levin tube but with three inches of the tip made of rubber so impregnated with lead as to make it serve as a terminal weight. The comments in this paper, while referring to the Levin tube, apply equally to the Wangenstein tube, which in some instances is the tube of choice.

These tubes differ from the previously popular Einhorn, Rehfuß, Twiss, and Jutte tubes in that they are single, long tubes with a smooth tip, the distal end of which has smooth, oval, fair-sized openings to allow drainage over a space of several inches. The Rehfuß and some other tubes have a metal attachment at the distal end. The Wangenstein and Levin tubes have a great advantage

over the large sized Faucher stomach tube which has become, in some degree, a relic of early twentieth-century medicine.

The size and quality of the Levin tube is such that it can be passed into the stomach or duodenum by the nasal route. Some of the advantages of the Levin tube and the nasal route may be listed as follows:

1. The patient is unable to bite the tube, thus giving the physician complete control of the process of insertion.
2. There is an absence of tickling of the soft palate with a decrease in the amount of retching.
3. The walls of the tube are sufficiently strong to withstand suction without collapse and to permit its passage without a stylet, thus allowing its use in an unconscious or anesthetized patient.
4. The smooth tip will pass easily into the duodenum and the tube, being fluoroscopically visible, makes it the instrument of choice for draining the gallbladder, especially when one considers the relative comfort of the patient throughout the time required for this procedure. The lead tip of the Wangenstein tube makes it preferable in this instance.
5. The openings are less likely to become blocked by food or mucus because of their large size, velvet eyes and their distribution over several inches of tube.
6. The ease with which it can be withdrawn, due to the lack of a metal tip, is an added comfort to the patient.

In diagnosis, the Levin tube is valuable for aspiration of gastric or duodenal contents for analysis.

In surgery, it is frequently of use in cases of postoperative gastric dilation and for the removal of gastric contents after an operation in order to relieve pronounced postoperative nausea and vomiting. During gastro-enterostomy it may be passed into the duodenum through the pylorus at the gastro-enterostomy opening to introduce fluids directly and immediately into the duodenum.<sup>2</sup> In other upper abdominal operative procedures, where fluid is desired in the duodenum during or after operation, the tube can be passed by the nasal route during the operation and the tip guided into the duodenum through the pylorus. It has been recommended recently that in cases

<sup>1</sup>Read before the Pinellas County Medical Society, May 3, 1940.



of esophageal stricture from swallowing lye, the Levin tube with a wire stylet may be used for gradual dilation of the stricture.<sup>2</sup>

As a therapeutic measure, the Levin tube is most frequently used in the drainage of the bile tract. Its use has also been recommended for the instillation of medicaments in the treatment of duodenal ulcer, duodenitis, strongyloidosis, for duodenal feeding in the treatment of ulcer, duodenal fistula, etc., for the instillation of cultures of bacteria to combat intestinal toxemia. Levin suggests the use of the tube for the instillation of oxygen into the duodenum, when indicated.

Use of the tube in lung diseases may be best illustrated by the following case:

J. B. G., a female, aged 65, was first examined on February 21, 1936, before sulfapyridine was available, and was found to be in an extremely dehydrated condition, with a temperature of 102 F., acidotic breath, respiration 35, obstipation and pain in the lower left chest. A diagnosis of bronchopneumonia was made. The following day, at 4 a. m., 7 a. m., and 10 a. m., the nurse's record showed that the patient was nauseated and vomiting and unable to retain anything by mouth. At 10:30 a. m. the Levin tube was inserted by the nasal route, the stomach washed until water returned clear, and the tube left in place for 3 days. During this period, the patient did not suffer from nausea or vomiting.

This case is mentioned in order to suggest more frequent use of the Levin tube in patients critically ill with pneumonia so as to have more perfect control of the gastric intake and output. All patients with pneumonia swallow large amounts of infected sputum which hinders the action of the stomach and intestines. In this use, the tube serves several distinct purposes: (1) its retention in the stomach permits frequent gastric lavage which keeps the stomach in as clean and healthy a condition as possible; (2) in a dehydrated patient, as in the case reported, water intake is important and with the Levin tube in place, it is possible to administer water at frequent intervals, even while the patient is asleep or unconscious; (3) nourishment in the desired amount can be given; (4) any medication desired can be given without disturbing the patient. These uses are of particular importance when the patient is continually nauseated, at times retching or vomiting, and unable to retain water, nourishment or medicine by mouth. A summation of these advantages shows a more comfortable patient throughout a critical illness, thus facilitating recovery.

The use of the Levin tube in diseases of the

heart may be illustrated by the following cases:

In 1932, in the wards of the Charity Hospital in New Orleans where this tube is widely used for many purposes, I treated an extremely severe case of coronary thrombosis. As a complication, there was severe retching and hiccups, after a state of unconsciousness had intervened. We immediately passed a Levin tube through the nose to maintain constant drainage of the gastric contents. This procedure relieved the patient of retching and hiccups as long as the tube was left in place. Its use was required for a period of about ten days until the patient returned to consciousness; several weeks later she was discharged from the hospital. When last heard of, several years later, she was still in relatively good health. I have repeatedly used this tube in similar cases.

E. V. T., aged 62, was admitted to the hospital May 19, 1935, with a diagnosis of severe coronary thrombosis. Her condition on admission was such that she was immediately put in an oxygen tent. Due to nausea and vomiting, the latter containing some blood, the Levin tube was inserted in the stomach by the nasal route and left in place until shortly before her discharge two weeks later. After the tube was inserted, the stomach was cleansed thoroughly and kept in a constantly clean condition. While in place, the tube was used for the administration of medicines and liquid foods as desired. After two weeks the patient was discharged from the hospital and kept in bed for several months. A second attack of coronary thrombosis occurred on August 8, 1935, when her condition was critical. The Levin tube was used continually until her discharge four days later for another four months' stay in bed. Two years later, in August 1937, this patient withstood an acute attack of malaria complicated by bronchopneumonia and is now enjoying relatively good health.

The use of the Levin tube in systemic diseases is illustrated by the following case:

E. A. B., a female aged 68, was admitted to the hospital on September 18, 1935, with a diagnosis of diabetes associated with marked hypertension, severe chronic pyelonephritis and a past history of recurrent gallbladder attacks. Her blood sugar was 360 mg. per 100 cc. with a nonprotein nitrogen of 50 mg. On September 21, the blood sugar was under control but there was a rise in the blood nonprotein nitrogen to 100 mg. and on September 24 this was further elevated to 150 mg. On admission, September 18, a Levin tube was inserted into the stomach by the nasal route and was kept there until October 5, two days prior to her discharge. During the first days of her illness, the stomach was frequently lavaged with 5 per cent sodium bicarbonate solution and large quantities of bile, which had regurgitated into the stomach, were removed. On September 24, when the blood nonprotein nitrogen was 150 mg., a specimen of undiluted bile content syphoned from the stomach showed nonprotein nitrogen of 60 mg. per 100 cc. This finding might possibly indicate that the liver was attempting to take over a part of the excretory function of the diseased kidneys and would seem to suggest the advisability of the constant use of the Levin tube in all cases of uremia. The patient was discharged from the hospital on October 7, with a nonprotein nitrogen of 50 mg. and enjoyed relatively good health for some months.

#### CONCLUSION

In addition to many recognized uses of the Levin type tube listed herein, I would like to suggest its more frequent use in practically all critical illness wherein the gastric activity is below par; and further, to draw particular attention to its use in bronchopneumonia, coronary thrombosis and severe systemic illnesses.

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## MANAGEMENT OF MAJOR INJURIES

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Orlando

In presenting a paper on this subject which covers so large a field, I am prevented from going into any detail and will necessarily have to be brief in my discussion, but I will try to cover the important points both as to management and treatment. I believe it would be fitting to take up injuries according to their anatomical location, beginning with the head.

The automobile is responsible for the majority of injuries that we now see in the average practice. A patient is often admitted to the hospital with a severe concussion and may have a fracture of the skull in addition to several fractures of the long bones. A great deal of thought and judgment is required in such cases in order to save the patients' lives and restore them to a normal condition.

Head injuries consist of: (1) severe lacerations of the scalp with profuse hemorrhage; (2) concussion of the brain; (3) contusion of the brain; (4) laceration of the brain; (5) fractures of the skull which may be further subdivided into basal, depressed, compound.

One or all of these conditions may exist. When a patient has suffered any of these injuries and there is severe shock present, the shock should be treated first. A careful examination should then be made and whatever treatment is indicated should be instituted immediately, or as soon as it is thought that the patient will withstand surgical procedure. I would like to emphasize that any injury, no matter how trivial, should be taken care of immediately, especially when there is a fractured bone or much devitalized tissue present. If we are too busy or are otherwise occupied, we should refer the patient to another doctor for immediate care and not (as I have frequently seen supposedly good surgeons do) place the patient in the hospital, apply hot compresses, and give him treatment when convenient. This practice should be unhesitatingly condemned.

In severe lacerations of the scalp without

damage to the bone, a thorough cleansing is necessary. The hair should be shaved, the wound thoroughly cleansed with soap and water and then irrigated with warm saline solution until all foreign material and blood clots have been removed. The incision should then be draped as in any major operation. A five-tenths or one per cent procaine solution should be injected, the bleeding points ligated carefully, and devitalized tissue excised with a sharp scalpel. Afterwards the wound should be thoroughly inspected for any damage to the bone or any remaining foreign material. The edges of the wound should be approximated carefully with fine nonabsorbable sutures which should pass through the galea aponeurotica as well as through the skin. If there has been much trauma to the underlying scalp, a small rubber drain should be inserted. Otherwise, complete closure should be done. One may seem unjustified in taking all of these precautions with apparently trivial head injuries but unfortunate and undesirable complications have arisen from such injuries which have not been carefully examined and treated properly. I recall having seen one patient who was disabled for a number of months by osteomyelitis and who lost a large area of the scalp as a result of improper treatment.

Concussions of the brain may be extremely mild or profound. When a person is stunned or rendered unconscious for a short time by a blow on the head, he is said to have sustained a cerebral concussion. No special treatment is necessary except that complete rest and observation for a few days should be advised as more serious symptoms may appear later, indicating delayed intracranial bleeding. When the patient remains unconscious for more than a few hours there must be contusion or more severe injury to the brain substance. When there has been actual bruising of the brain tissue and rupture of small vessels the patient is likely to remain unconscious for a longer period of time. After regaining consciousness he will usually be irritable, fretful, or in a stupor; also he may present weakness of the facial muscles, hemiplegia, or ocular disturbances. The condition depends upon the degree and location of the damage. These patients should be treated by rest in bed until the headache, vomiting, and evidences of cerebral irritation have entirely disappeared. The intake of fluids should be limited to not

more than 1500 cc. in twenty-four hours. Lumbar punctures should be done if indicated but in the milder cases this should be omitted. When a patient is unconscious, sedatives can be given rectally or by hypodermic. Magnesium sulfate should be given when dehydration is indicated. Dehydration is usually necessary in these cases but should not be carried too far as it may result in more damage than good. When a patient has slight delirium, sedatives such as nembutal or other barbiturates should be administered in small quantities for complete sedation. Morphine should not be given because of its depressing effect on the respiratory center. If the patient has cervical rigidity, lumbar punctures should be done and the canal thoroughly drained. When there is much blood, daily punctures should be done until the fluid is clear. This procedure promotes the patient's comfort and also will shorten the period of disability.

Laceration of the brain is a much more serious condition and will frequently result in permanent disability or even death. Usually where there is a laceration there is also a depressed or compound fracture. If there are signs of localized injury to the brain tissue, exploration of that area should be undertaken. If the brain is found to be lacerated, bleeding points should be controlled. I might add in this connection that if a neurologic surgeon is available, this type of case should be referred to him. Any foreign substances found in this area should be removed; various contused areas should be resected and all bleeding points controlled.

The frequent uncomplicated types of linear fractures require no special treatment. The diagnosis is usually made by the roentgenologist. There are very few symptoms. These patients should be kept absolutely quiet for a period of several days and allowed to be up and about as soon as the signs of cerebral irritation have disappeared. When linear fractures are complicated by involvement of the dural sinuses, they become serious. In these cases meningitis may develop. Most of the dural lacerations will heal spontaneously if left alone. Irrigations of the nose should not be done. As a preventive measure large doses of urotropin or sulfanilamide may be given, the latter drug being the most efficient.

Laceration of the middle meningeal artery or one of its branches requires prompt operative

intervention. One should always bear in mind the possibility of intracranial bleeding following these injuries and if the patient suddenly becomes stuporous or goes into a coma, he should be carefully examined for localizing neurologic signs. Basal fractures are usually linear and are an extremely serious type of injury, the mortality rate being high. When these fractures involve the ear with rupture of the tympanic membranes and with a leakage of spinal fluid, conservative treatment is indicated. No irrigations of the ear or lumbar punctures should be done.

In depressed fractures where there is definite evidence of brain pressure, operation is indicated. If there is severe damage to both bone and brain tissue, operation should be carried out without delay; all devitalized tissue and foreign material should be removed and all bleeding points should be ligated. A blood transfusion will be of benefit if the shock is great.

Under compound fracture we include those fractures of the vault which are associated with a break in the continuity of the scalp. Fractures in which there has been contamination need immediate care. If the patient is in shock, this should, of course, be controlled before any operative procedure is undertaken. When the patient's general condition is found to be satisfactory for operation, the scalp should be shaved and carefully washed with warm water and soap; the wound thoroughly cleansed with ether and alcohol, and whatever antiseptic necessary used. When the scalp has been anesthetized with one per cent procaine, the edges of the wound should be carefully inspected. If there is contused tissue or gross contamination, this should be trimmed away until healthy tissue is reached. All bleeding points should be controlled, and the depths of the wound thoroughly searched for foreign material. After thorough cleansing, the brain covering should be closed as tightly as possible and a sterile dressing applied.

Leaving the head we take up, in order, injuries to the spine, thorax, abdominal cavity and fractures in general, including simple and compound fractures of all bones.

Due to the extreme violence of automobile accidents, instances of serious injury to the thorax, abdominal cavity, and the contained viscera are numerous. It frequently develops that



a patient who has received a rather severe fracture of one of the vertebrae appears in excellent condition upon first examination but later notes tenderness over the spine in the location of the injured vertebra. I had occasion recently to see three such cases. In one there was a compressed fracture of the fourth and fifth lumbar vertebrae received when the automobile in which the patient was riding went over a railroad track and threw her a slight distance up in the air, causing her to be thrust suddenly back on the seat. She did not consider her injury to be of any consequence until the following day. Examination revealed tenderness over this area and muscular rigidity, and roentgenograms showed compressed fractures of the bodies of the fourth and fifth lumbar vertebrae. In another case injury occurred when the patient was thrown up on the seat while driving a tractor.

These patients require bed rest and some form of frame for producing hyperextension of the spine and then a well fitted spica cast for from eight to twelve weeks followed by a Taylor or other type of brace for an indefinite period. Where there is a dislocation, traction and hyperextension under anesthesia or gradual extension over a period of time is indicated. The treatment then is as in fracture.

Severe contusion of the chest occurs frequently when the patient is thrown from a vehicle or against the steering wheel. Roentgenologic examination will often disclose fractures of ribs and occasional evidence of internal hemorrhage. Where there is definite contusion to the lungs and mediastinal contents the prognosis is grave. The treatment should be rest, sedation, blood transfusions, and fluids by the intravenous route. Where there is evidence of damage to the abdominal viscera an exploratory operation is indicated. If there is evidence of internal hemorrhage abdominal exploration should not be delayed.

The next major injury of importance is the one we most frequently encounter, namely, fractures, both simple and compound. The time to reduce and to treat a fracture is as soon after its occurrence as possible, the patient's condition permitting. If there is a great deal of shock and if other injuries have occurred the fracture becomes a matter of secondary importance. In the case of a simple fracture early reduction and proper immobilization are the only

treatment necessary. This procedure should be done properly and the injured member watched closely for swelling and other evidences of complications. Where the fracture is compound, experienced surgical judgment and reasonable technical skill are of the utmost importance. Operative procedures can not be uniform because of the wide variation in the local damage and systemic shock. Thorough surgical cleansing and adequate débridement followed by reduction and external immobilization are both of prime importance. The selection of any surgical procedure depends upon the length of time that has elapsed since the injury and the degree of inflammatory reaction encountered. During the first twenty-four hours we deal with a soiled and contaminated wound but after twenty-four hours the inflammatory reaction gives rise to septic possibilities of uncertain consequences. The method of treatment advanced by Orr obtains immobilization by plaster and internal fixation by use of small Steinmann pins or Kirschner wires. Other forms such as Braun frames, Thomas splints, or overhead frames with traction have been used by some surgeons with excellent results.

In dealing with a compound fracture, the area around the wound should be thoroughly cleansed and all devitalized tissue cut away as soon as the patient's condition permits. Bone fragments and foreign material should be removed. However, before this is done a Kirschner wire or Steinmann pin should be properly placed. The wound itself, after thorough débridement, should be cleansed by means of a copious quantity of normal saline solution, soap, water and diluted alcohol. I do not believe strong caustic antiseptics should be used as they devitalize normal tissue and prepare a place for bacterial growth. Torn fascia may be approximated loosely and where there is an extensive laceration of skin this may also be loosely approximated but the wound should not be completely closed. The fragments of bone should be approximated as nearly as possible, and the wound lightly packed with vaseline gauze; after this a wellfitting plaster bandage should be applied. These wounds should be watched closely but not dressed for a period of from two to three weeks. There are numerous mechanical aids for holding the Steinmann pins and wires, which are of great assist-

ance in maintaining the fragments in place until the plaster has been applied and properly dried. When these appliances are available they should certainly be used although they are not necessary for adequate treatment.

In the treatment of compound fractures and severe injuries, there are several preventive measures which reduce the mortality and morbidity rate.

At the Orange General Hospital we have for a long time used the prophylactic dosage of tetanus antitoxin and during recent years we have been using gas bacillus antitoxin in prophylactic doses. This I believe, has greatly reduced the mortality from gas gangrene infection and, along with thorough débridement, is responsible for preventing this type of infection. It has been shown that the anaerobes which produce gas gangrene are not in themselves pathogenic, unless they are in combination with the toxic metabolic products or are allowed to form them. If a culture containing anaerobes is washed carefully and injected into the tissues of experimental animals neither gas gangrene nor any other infection occurs. If, however, these organisms are mixed with a small amount of culture filtrate or with any material containing their toxins, typical gas gangrene will occur. Therefore, it is evident that the thorough cleansing and removal of devitalized tissue are just as important as the use of prophylactic doses of serum. We have also had recent experimental evidences that sulfanilamide and its various compounds are useful both for prophylaxis and for the active treatment of gas gangrene infection. Excellent results have been reported in the use of sulfanilamide in the treatment of gas gangrene infections and further experimental studies are in progress.

Another condition which I consider a major injury is a burn, especially one produced by fire or chemicals. When a patient who has received a severe burn is first seen, if he is not in too great a shock, treatment is immediately begun. If shock is present, however, measures are taken to combat this and as soon as the patient's condition permits, treatment of the burn is instituted. Morphine in adequate doses should be given in the beginning. The burned area should then be thoroughly cleansed and all grease or other preparations removed. If necessary, this should be

carried out under an anesthetic. The patient should be placed in bed, preferably on sterile sheets. The burned areas should be sprayed with a freshly prepared 5 per cent solution of tannic acid, several applications usually being necessary, and then painted with a 10 per cent solution of silver nitrate. A frame should be placed over the bed and constant heat applied by means of electric light bulbs attached to the frame. Liberal amounts of fluids should be given by mouth, intravenously, or both, depending upon the condition of the patient. The burned area should be kept under constant observation, sepsis watched for closely and treated promptly. The eschar should be loosened gradually and any raw areas remaining should be skin grafted as early as possible so as to prevent disabling scars.

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## TREATMENT OF MINOR INJURIES

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Because of the potentialities of secondary results, the treatment of minor injuries is important to the Railway Surgeon. Abrasions, contusions, lacerations, puncture wounds, burns, strains, sprains, most dislocations and certain fractures are generally considered minor injuries; all, however, are potentially serious. Naturally, the possibility of infection must be considered in all these conditions. A brief discussion or resume of the generally accepted procedures with mention of some of the newer ones should be timely.

ABRASIONS as such, are usually cared for by simple cleansing and the application of an antiseptic dressing. This may be any one of the several popular antiseptics such as tincture of merthiolate, mercresin, metaphen, tincture of iodine, or the alcohol-acetone solution of mercurochrome. When there is much dirt or grease on the abraded surface, it is well to use gasoline followed by ether to clean the surface after which the antiseptic is applied. Many abrasions are accompanied by severe contusion, and these will require the application of hot moist dressings instead of simple antiseptic dressings. The possibility of the introduction of tetanus spores must not be overlooked and antitetanus serum should be given whenever remotely indicated.

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CONTUSIONS, particularly those over bony surfaces, must be carefully noted and recorded. The patient should be warned to take notice of any unusual lump on the bone even though it occurs long after the injury. The immediate bony reaction may be a simple swelling of the periosteum or an active osteoperiostitis, while the late lump may be a malignant growth. Usually the primary treatment should consist of hot moist dressings, changed whenever dry, and continued until all the swelling disappears.

Contusions that may result in damage to internal organs are not classed as minor injuries and will not be considered here. Suffice it to say that rupture of hollow or solid viscera can be caused by contusions that do not break the skin, and one should not fail to look for and question the patient about the possibility of such injuries having occurred.

LACERATIONS, especially those involving tendons, call for painstaking débridement and suturing. All torn and devitalized tissues should be cut away by sharp dissection. After bleeding has been controlled, any divided tendons should be carefully sutured and the wound closed, sufficient space being allowed between the skin sutures for adequate drainage. Wounds of this type can best be cleansed by gasoline followed by ether, and should be thoroughly swabbed with a good antiseptic. Personally, I prefer tincture of merthiolate. When there is likely to be much swelling a hot moist dressing of boric acid solution, normal saline, or magnesium sulfate solution should be applied. A dressing of hexylresorcinol solution or one containing glycerin is often useful because of its hygroscopic action.

Lacerations that penetrate deeply and are badly contaminated should be closed with drains, or with Carrel-Dakin tubes placed for continuous irrigation with a hypochlorite solution. In addition to the tetanus antitoxin, which should be a routine treatment for ragged or soiled lacerations, all deep lacerations should be protected by the prophylactic injection of gas bacillus antitoxin. Lacerations involving tendons must be splinted, the splints being placed in such position that any resulting contracture will be in a line that will not interfere with normal function of the tendons.

PUNCTURE wounds at once call for thorough cleansing and proper prophylaxis for tetanus and gas bacillus infection. When the wound ex-

tends deeply, it should be opened by incision and the depths explored in an effort to remove any foreign material that might have been carried into it. Another danger of puncture wounds is injury to large blood vessels. No considerable hemorrhage or hematoma from a puncture wound should be neglected. The tumor should be opened and the bleeder ligated or thoroughly packed with gauze. Ordinarily the packing can be removed or replaced in twenty-four hours.

BURNS. The subject of treatment of burns can be discussed for longer than the time allotted this paper. The type of burn, its location, and the time at which the physician first sees it, will influence the treatment. Fire burns usually are more severe than those due to moist heat such as steam or hot water. Chemical burns are in a class by themselves. For some burns, the prompt removal of devitalized tissue followed by the application of the dressing that has proved most satisfactory in the hands of the individual physician is sufficient. Five per cent tannic acid, sprayed on, has somewhat superseded the picric acid treatment of a few years ago. More lately, Bettman, of the University of Oregon, used tannic acid with silver nitrate while Fantus and Dyniewicz, of the University of Illinois, suggested a compound tannic acid solution containing salicylic acid and the chlorides of potassium, sodium and calcium. Following its application, the resulting coagulum is swabbed with 10 per cent silver nitrate.

The early application of skin grafts is urged by all of the more recent writers and certainly shortens the period of disability.

One cannot consider the subject of burns without mentioning the burns that are caused by handling caustic materials. Portland cement, which consists of about 60 per cent lime, is responsible for many disabling burns of hands and feet, as well as for chronic irritation of eyes and eyelids. Prophylaxis instead of treatment is the ideal procedure. However, once the cement burn has occurred, the crust should be removed as soon as possible and the wound treated as an extensive granulating wound. The reason for the prompt removal of the crust or coagulum is that the caustic alkali is held in the crust and can be redissolved by the serum and, in turn, through precipitation, produce a second or deeper burn on the same location. Therefore it is necessary to remove the crust and irrigate



the surface with a very slightly acid solution followed by a dressing that will prevent further burn. A bland or stimulating ointment containing quantities of vitamins A and D, obtained from cod liver oil, has been found to stimulate rapid granulation and hasten the preparation of the burned area for skin grafting. The prevention of infection about the edges of the burned area is exceedingly important because it is from these points that the whole wound becomes infected with the resulting so-called "pus poutice" development. Gas gangrene or tetanus may result from burns so must always be kept in mind, and prompt treatment instituted whenever they appear.

STRAINS AND SPRAINS are among the more frequent minor injuries. While industry is the usual source of this type of injury, a large number occur in the home or in sports. A sprain is more serious than a strain, and the damage more extensive. With sprains there is actual trauma, tearing of the ligaments, while in strain there is no actual tearing. The treatment, therefore, will vary with the case. Strains of ankles and knees, as well as shoulders, can be adequately cared for if they are promptly strapped with adhesive plaster, and the patients sent on their way with instructions to keep the joints moving. Sprains require the same procedure with the addition of physiotherapy. The injection of novocain solution into and around a sprained joint, which has been advocated by several writers in recent journals, may become a popular procedure and, when combined with adequate strapping, is said to allow the patient to resume walking or to return to work almost immediately.

FRACTURES. Because of the frequency of unrecognized fractures in cases of severe sprains, a roentgenogram should be insisted upon in all questionable cases. When discovered, fractures about joints require splinting for a long enough period to give firm union, and to enable

the joint to withstand physiotherapeutic manipulation. Splints made of plaster of paris bandages that may be kept in airtight containers constitute the best type of splint for most injuries of this kind. There is now available material for making moulded splints of cellulose and pyroxylin which have the advantage of being very light in weight and offer practically no resistance to roentgen rays. Sponge rubber padding about sprained joints is being used with good results, especially about the knees.

I would like to mention the use of the newer anesthetics and to call attention to the fractional dosage or administration of evipal and pentothal sodium. Both of these intravenous anesthetics give quick relaxation and analgesia. Sodium pentothal gives a somewhat smoother, more prolonged and less toxic anesthesia. Preliminary medication is essential to the best results with any intravenous anesthetic. Morphine and atropine, most commonly used, seem to cause more nausea than pantopon, or atropine alone. The use of local anesthesia for the reduction of fractures has become more common and is satisfactory in most cases, particularly in fractures of the forearm in children. I have used it occasionally in fractures occurring in the lower third of the leg.

#### CONCLUSION

No attempt has been made to cover the treatment of all minor injuries. A brief resume has been given of the generally accepted treatment for several types of injuries. Mention has been made of a few procedures that I have personally found most satisfactory. Particular emphasis has been placed upon the prophylaxis of tetanus and gas gangrene, and the treatment of cement burns. Local anesthesia in reduction of fractures and two of the new intravenous anesthetics have been mentioned. Attention has been called to the possibility of late bony malignancy following minor injury.

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## OUR NEW GOVERNOR

As this January Journal goes to press, Florida's new governor, Honorable Spessard L. Holland, takes over the official duties of his high office. Governor Holland, who served as state senator for eight years, was graduated from the University of Florida, and has been an active member of that University's alumni. He possesses unusual talents which should make him an outstanding chief executive of the state.

The medical profession is particularly interested in the health of Florida citizens. It is, therefore, gratifying to know that Governor Holland has stated officially that he will not inject state politics into the public health administration in Florida and that he will not interfere with its functions either by partisan, personal or petty politics. Florida enjoys the patronage of a host of winter visitors. The subtropical climate, sunshine and beaches add to the healthfulness of the state. The movement of this vast population into the state and out of it adds to the responsibilities of those protecting the health of the people. Our new governor is cognizant of this fact and has, at the very beginning of his administration, given every assurance of cooperation. His

position and attitude toward the public health program have been made plain and he is justified in expecting proper cooperation from the medical profession and the health officials. In an address before the twelfth annual convention of the Florida Public Health Association at Tampa, December 6, 1940, Governor Holland made some pertinent statements:

I do feel it is proper to call attention to the fact that there has been partisan politics engaged in by the State Board of Health and by some of its key employees. In my opinion this conduct is not worthy of any health department; however, it is water under the bridge, and I am paying no attention to it. I shall never infringe into this important field of administration of state law. In return I hope there will never be any interference or activity in state politics by the members of the State Board of Health or its key employees. I want them absolutely to keep their hands out of state politics. . . .

Another thing I would like to say. It must be presupposed that any engagement in party politics within the State Board of Health will not be forgiven by the authorities higher up and will be regarded as direct infringement on rules that must be adhered to. I sincerely hope that such past activities have permanently disappeared. So far as I am concerned, I would regard anything of that kind not as a play of politics but as a summons to clean up the organization so business could be transacted efficiently. I feel very, very keenly in the field of public health because it seems to me that with all the miseries to which human beings have fallen heir, we have our full share in this state. There is enough work for us all to do in alleviating human suffering without engaging in party politics. We must bring just as much efficiency as possible into our efforts to relieve and improve conditions. . . .

The question has come up whether it would be better for the State Health Officer to be named by the Governor or by the Board. If you expect him to be a police officer, he will have to be named by the Governor. If you expect him to be just an executive comparable to that of the president of the University of Florida, he can be named by a Board which would be giving daily consideration to the problems of health, presupposing the right kind of board. There should be no doubt about the wisdom of that Board in choosing a person and other persons under him best to observe the carrying out of the objectives of the health program. I think that is all that I need to say to show you how I feel.

## FIRST ANNUAL MEDICAL MEETING OF THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

The National Foundation for Infantile Paralysis held its First Annual Medical Meeting at the Waldorf-Astoria Hotel, New York City, on November 7 and 8, 1940. Attending the meeting were the members of the medical advisory committees, the grantees of the Foundation, and the Board of Trustees. Reports of the activities of committees and grantees for the preceding year were presented, and recommendations were made for grants for 1940-1941.

The Foundation is concerned with promo-



tion and furtherance of research on all phases of infantile paralysis. Studies are being carried on through grants from the Foundation on problems of epidemiology, virus research, relationship of nutrition to poliomyelitis, and the prevention and treatment of the disease. In addition, a program of professional and lay education has been promoted.

The Committee on Virus Research reported that studies were being conducted to determine the nature of the poliomyelitis virus. Studies on the development of active and passive immunities were reported. All attempts at producing immunity have thus far met with failure. Studies in chemotherapy were also reported. While a chemical has not been found that will do for poliomyelitis what sulfanilamide has done for certain bacterial infections, leads have been discovered which are now the subject of further investigation.

Reports were received from grantees who are studying both the effects of the disease and the methods of prevention of damage. Physiologic changes in muscular atrophy are being studied at the Jewish Hospital in Cincinnati, at the Russell Sage Institute for Pathology in New York, and at the State University of Iowa. None of these investigations have advanced far enough to warrant any definite conclusions.

Other investigations reported were those on gross and microscopic pathologic studies of paralyzed muscles; the measure of end results of various forms of surgical and conservative treatment; and studies of epidemics.

To inform both professional workers and the public of certain aspects of this disease an educational program has been conducted. An exhibit at the New York World's Fair was viewed by over 5,000,000 persons. Scholarships have been made available through the National Research Council to physicians wishing to specialize in orthopedic surgery or virology. Other scholarships have been made available to nurses wishing to specialize in the orthopedic aspects of public health nursing. Graduate instruction in physiotherapy also has been provided.

At this meeting additional grants were recommended for continuation of existing studies or new investigations in the amount of \$137,350.00.

## IRREGULAR PRACTITIONERS TO BE INVESTIGATED

In many parts of our land there are persons who fraudulently claim to have the knowledge and ability to cure the ailments of mankind. They are not the legally licensed practitioners of the healing art, but persons who are practicing in violation of state laws and collecting money from our citizens under false pretenses. The uninformed citizen when seriously ill is often favorably impressed by an impostor who gives assurance of quick and permanent cure.

Florida, like other states, faces the problem of protecting its citizens against irregulars. Laws have been passed to restrict the practice of the healing art to those who have passed certain examinations given by state boards of examiners, as proof of their education and other qualifications. Such laws, however, do not of themselves solve the problem. When an individual arrives in your city, makes contacts with the sick, and proclaims certain cure, what is to be done? The first answer that naturally presents itself is that such a person should be reported to the proper authorities. This may seem a simple solution. However, who is going to make the report? Who will secure the evidence that there has been a violation of law? Since the problem of apprehending and convicting irregulars is so complicated, the health of our people is often jeopardized.

To assist in the correction of such conditions in Florida, the State Board of Health at its December meeting took an action which is a forward step in the protection of public health. Effective January 1, the four inspectors serving with the Bureau of Drugs and Narcotics of the State Board of Health were empowered to investigate, secure evidence, and bring to the attention of law enforcement officials, irregularities in the practice of the healing art. When quacks, irregulars or those making unlawful claims are reported to the State Board of Health, an inspector will immediately make a proper investigation.

In order that the Bureau of Drug and Narcotics may have firsthand information concerning those who are legally licensed to practice the healing art, the annual registration of doctors will be handled by this Bureau. This plan provides a definite tieup of related work as the inspectors, through their Bureau, will

have information as to who is properly licensed and who is not.

The State Board of Health in Florida is a powerful organization, working for all of the people all of the time, to ensure the protection of public health. This new move on the part of the Board, is in line with many other valuable contributions it has made to our citizens.

## BASIC SCIENCE LAW FOUND CONSTITUTIONAL IN ARKANSAS

The following account of an action brought by the Arkansas Medical Society to restrain the State Board of Chiropractic Examiners from issuing licenses to applicants who had not passed the Basic Science examination, appeared in the *Journal of the American Medical Association*, issue of December 14, 1940.

The case constitutes a trial of the Basic Science law, which was found to be constitutional by the State Supreme Court.

**BASIC SCIENCE LAW (Arkansas): CONSTITUTIONALITY AND APPLICABILITY TO CHIROPRACTORS.**—The legislature of Arkansas in 1915 enacted a statute creating a state board of chiropractic examiners and required it to examine prospective chiropractors in the subjects of anatomy, physiology, symptomatology, chemistry, hygiene, chiropractic principles and diagnosis. In 1929 a basic science law was enacted in Arkansas which requires every applicant desiring a license to practice the healing art or any branch thereof to pass an examination in the basic sciences—anatomy, physiology, chemistry, bacteriology and pathology—and present to the licensing agency a certificate to that effect, issued by the state board of examiners in the basic sciences, before he may be permitted to take a further examination for the particular branch of the healing art which he desires to pursue. This law excepted from its application dentists, nurses, midwives, optometrists, chiropodists, barbers, cosmeticians and Christian scientists. By reason of these statutory provisions, the plaintiff, the Arkansas Medical Society, petitioned the Pulaski chancery court for an injunction (1) to restrain the defendant state board of chiropractic examiners from issuing licenses to practice chiropractic to any applicants who failed to present certificates showing satisfactory completion of the required examination in the basic sciences and (2) to enjoin two individual chiropractors from practicing chiropractic under invalid licenses issued to them by the state board of chiropractic examiners without their having complied with the basic science law. From an order of the court denying the petition, the plaintiff appealed to the Supreme Court of Arkansas.

The defendants contended that the basic science law does not apply to the practice of or the licensing to practice chiropractic and that so far as it attempts to regulate such licensing or practice it constitutes an unreasonable and unconstitutional interference with the right to practice chiropractic. In support of this contention the defendants argued that bacteriology and pathology, two of the subjects in which applicants for licensure to practice the healing art are required by the basic science law to take examinations, were neither essential to nor connected with the practice of chiropractic. With this contention, however, the Supreme Court of Arkansas could not agree. The legislature, said the court, believed it proper that all persons seeking a license to practice the healing art should have a knowledge of, among other subjects, bacteriology and pathology, and we cannot say their inclusion as to chiropractic was unreasonable, arbitrary and without any relation to such practice. Bacteriology is defined by Webster as "The science which deals with the study of bacteria. It is a branch of botany, but some of its most important practical relations are with hygiene, medicine and agriculture." Certainly bacteriology has some relation to the practice of chiropractic since "some of its most important practical relations are with hygiene," a subject in which a prospective chiropractor is required by the chiropractic practice act to take an examination. Pathology is defined as "The science treating of diseases, their essential nature, causes and development, and the structural and functional changes produced by them." In reply to the defendants' argument that the subject of pathology was not related to the practice of chiropractic because chiropractors do not diagnose or treat disease but merely locate "the nerve pressure of the spinal column" and make proper adjustments to relieve that pressure, the court said: "If he does not treat diseases, what does he treat? Does he manipulate the vertebrae of a well person just for the pleasure of such well person? There would be no excuse for any regulatory chiropractic laws, if they were not engaged in treating disease." In the judgment of the court, the basic science law does apply to the practice of and the licensing to practice chiropractic, which is a branch of the practice of the healing art, and applicants for license must successfully pass examinations in the basic sciences before the basic science board of examiners as a prerequisite to eligibility for examination before the chiropractic board.

Furthermore, continued the court, the basic science law does not abridge the rights and privileges of chiropractors but simply places additional requirements on the qualifications for practice. It merely regulates the practice of chiropractic but does not ban it. The fact that the basic science law excepts from its operation dentists and certain others does not constitute, as the defendants claimed, an arbitrary and unreasonable classification.

The Supreme Court of Arkansas concluded that the basic science law is constitutional, and so it reversed the judgment and remanded the case with directions that the injunction be granted. An appeal to the United States Supreme Court was dismissed for want of a substantial federal question.—*Stroud et al. v Crow et al. (Ark.)*, 136 S. W. (2d) 1025; 61 Sup. Ct. 17.



## MEDICAL LICENSES GRANTED

Dr. W. M. Rowlett, Secretary of the State Board of Medical Examiners, reports to the State Medical Association that out of fifty-seven applicants who took the State Board examination in Tampa on November 18 and 19, fifty-three were successful and licenses were issued to them. The following are the names and addresses of the successful applicants:

Abrams, Marc Victor; Morristown, N. J., (Long Island College 1913).  
Bonright, Elizabeth M.; Englewood, N. J., (Columbia 1940).  
Bourkard, Ernest Richard; Miami, (Tenn. 1939).  
Brooks, Warren Ainsworth; Orlando, (Emory 1938).  
Burton, Joe M.; Atlanta, Ga., (Emory 1940).  
Byrne, Maryland Burns; New York, N. Y., (N. Y. Women's 1917).  
Clark, James Andrew, Jr.; West Palm Beach, (Tenn. 1938).  
Colclough, John Ashby; New Orleans, La., (Tulane 1923).  
Cooper, Maurice Price; Toledo, O., (Cincinnati 1929).  
Crawford, John Brantley; Miami, (Emory 1939).  
Drane-Hopkins, Miriam M.; Memphis, Tenn., (Tenn. 1926).  
Estes, Woodrow Brown; Miami, (Tenn. 1939).  
Fitzpatrick, Emmett Thomas; Miami Beach, (Marquette 1938).  
Flynn, Joseph Clement; Cincinnati, O., (Cincinnati 1939).  
Gates, Emily Harvey; Lakeland, (Minn. 1940).  
Gibboney, Harry S.; Jacksonville, (Emory 1940).  
Helsabeck, Belmont Augustus; Winston-Salem, N. C., (Virginia 1931).  
Higginbotham, S. Roy, Jr.; Atlanta, Ga., (Emory 1940).  
Hodsdon, Edward E.; Miami, (Tufts 1940).  
Hunter, William LeGrand; Emory University, Ga., (Emory 1940).  
Inclan, Albert Francis, Jr.; Jacksonville, (Tulane 1939).  
Jordan, Joseph Mitchell; Gainesville, (Penn. 1938).  
Katzin, Herbert Maurice; New York, N. Y., (Harvard 1937).  
Levine, Morris Joseph; Atlantic City, N. J., (Georgia 1937).  
Loomis, Lyon Kneeland; Tampa, (Rochester 1939).  
McCleery, Robert Stowers; Miami, (Ohio 1938).  
McConnell, W. H.; Tampa, (Tulane 1940).  
McTurnan, Robert Ward; Tampa, (Indiana 1939).  
Mabry, Edward Hays; Tampa, (Tenn. 1937).  
Malone, Bert Hagen; Jacksonville, (Louisiana 1936).  
Mast, Karl Frederick; Miami, (Indiana 1938).  
Meriwether, William G.; Tampa, (S. C. 1940).  
Miller, Cecil Ewing; Sarasota, (Okla. 1938).  
Morrow, Arch Sherrod; Jacksonville, (Duke 1936).  
Nickel, Walter Russell; Rochester, Minn., (Minn. 1938).  
Norman, Edith Emilie; Chattahoochee, (Rush 1927).  
Oren, Benjamin G.; Jacksonville, (Albany 1940).  
Powers, Earl Jennings; Blanchester, O., (Cincinnati 1932).  
Randall, William S.; Pensacola, (Louisiana 1937).  
Ravitch, Samuel Joseph; Quincy, (Minn. 1927).  
Rose, Maurice Joseph; Chicago, Ill., (Ill. 1923).  
Rosenberg, Harold William; New York, N. Y., (Maryland 1935).  
Rotter, Saul David; Brooklyn, N. Y., (Long Island 1936).  
Ruediger, Ernest Henry; Chattahoochee, (Rush 1903).  
Schultz, Frederic W.; Chicago, Ill., (Maryland 1902).  
Shaffer, Joseph Haskell; Detroit, Mich., (Rush 1932).

Shann, Herman; Brooklyn, N. Y., (Bellevue 1907).  
Shipley, John Thomas; Palm Beach, (Jefferson 1929).  
Victor, Jules, Jr.; Miami, (Georgia 1938).  
Virgin, Herbert Whiting, Jr.; Madison, Wis., (Northwestern 1932).  
Vogt, Elkin; Decatur, Ga., (Georgia 1939).  
Williams, Ashbel Cotten; Jacksonville, (Yale 1935).  
Williams, William Lewis; Pensacola, (Virginia 1929).

## MARRIAGES AND DEATHS

## MARRIAGES

Dr. Leo M. Wachtel and Miss Helen Ross Dixon of Jacksonville were married on January 7.

## DEATHS

Dr. Van William Burns of Stuart died on December 23 at West Palm Beach.

## STATE NEWS ITEMS

Dr. John Henry Thomas of Gainesville completed written examination and flight test for a private pilot's certificate at the Gainesville Municipal Airport on December 5.

\* \* \*

Dr. O. O. Feaster of St. Petersburg was elected first vice president of the Radiological Society of North America at its meeting held in Cleveland, December 2 to 6. The membership of this Society totals 1,360 radiologists of the United States, Canada, Mexico, Central America and Cuba. The attendance at the Cleveland meeting was approximately 800. Other Florida doctors attending the Cleveland meeting were: J. Maxey Dell, Jr., Gainesville; A. G. Levin and Gerard Raap, Miami; Frazier J. Payton, Miami Beach; J. N. Moore, Ocala; Annette M. Feaster, St. Petersburg; Charles M. Gray, Tampa.

\* \* \*

Dr. W. L. Shackleford of West Palm Beach has resigned as superintendent of the Good Samaritan Hospital, his resignation to become effective February 1, 1941. He has held the position of superintendent for the past thirteen years. Dr. Shackleford plans to enter private practice after relinquishing his duties as superintendent of the hospital.

\* \* \*

Dr. Shaler Richardson of Jacksonville was elected president of the State Board of Health at the Board meeting held in December. Dr. Richardson succeeds in the presidency the late Dr. N. A. Baltzell.



Dr. Kenneth R. Bell of Sanford recently addressed the Key Club of the Seminole High School of that city. He spoke on the qualifications necessary to become a good physician.

\* \* \*

Written examinations for Florida applicants of the American Board of Obstetrics and Gynecology were held in Riverside Hospital, Jacksonville, on January 4, under the supervision of Dr. Ferdinand Richards.

\* \* \*

Dr. Courtland D. Whitaker of Marianna has been selected to succeed Dr. Nicholas A. Baltzell as physician to the Florida Industrial School for Boys in that city.

\* \* \*

Dr. A. J. Logie of Jacksonville has just returned from a vacation in California. He was the guest of Dr. Bennett and Dr. Kupka at the Los Angeles County General Hospital, and of Dr. Pottenger at the Pottenger Clinic and Sanatorium in Monrovia; and also of Dr. Winter, Chief Physician at the Olive View Sanatorium.

#### MONTGOMERY MERRITT HANNUM

Dr. M. M. Hannum, oldest Eustis physician from point of service, died suddenly in Orlando on the evening of December 9. Settling in Eustis in 1912, he was one of the founders of the Lake County Medical Society and, later, of the Lake County Medical Center.

Dr. Hannum was born in Maryville, Tennessee in 1883 and received his degree from the University of Tennessee Medical College in 1910.

He was a member of the Rotary Club and the Elks Lodge, a member of the Lake County Medical Society, the Florida Medical Association, and a Fellow of the American Medical Association. At the time of his death, he was serving as chairman of the Medical Preparedness Committee of the Lake County Society.

Dr. Hannum is survived by his widow, Cliff; one son, William, a student at the University of Tennessee Medical School; one daughter, Mrs. Otto Wettstein, Jr., of Ocala; one sister, Mrs. Simpson Penney, Sr., Orlando; and one brother, Fisher Hannum of Eustis.

#### NICHOLAS ALBERT BALTZELL

Dr. Nicholas A. Baltzell of Marianna, president of the Florida State Board of Health, died in Jacksonville at 8 o'clock on the morning of December 8, at the age of 63. He had come to that city to attend a meeting of the State Board which was to have convened at 10 a. m. He had been a member of the Board since 1933, having been appointed by Governor Dave Sholtz and re-appointed by Governor Fred Cone.

Dr. Baltzell was well known throughout the state as a private physician, but had given much of his time to the State Board of Health and to other organizations. He established and owned a hospital in Marianna, where he was born March 18, 1877, the son of the late Albert and Rachel Robenson Baltzell. He was married in 1905 at Hampton, Virginia.

He was chief of the medical staff of the Industrial School for Boys at Marianna, past president and a member of the State Board of Medical Examiners, and a past president of the Florida Railway Surgeons' Association. He was a member of Morocco Temple, the Florida Public Health Association and the Jackson County Medical Society, a life member of the Florida Medical Association, and a Fellow of the American Medical Association.

Dr. Baltzell was graduated in 1900 from Tulane Medical School and was a member of the Sigma Nu social fraternity. He interned at Touro.

Survivors include his widow, Mrs. Ethel Schmelz Baltzell; two daughters, Mrs. Georgia Merriam, wife of Capt. Lauren W. Merriam, United States Army, West Point, N. Y., and Mrs. Margaret Hester, wife of Capt. Henry Hester, United States Army, Honolulu, Hawaii; and a sister, Mrs. Annie Baltzell MacKinnon of Marianna.

Dr. Baltzell had an active interest in and a keen understanding of present-day problems in the field of Medicine. His counsel and support will be greatly missed at medical gatherings in the future.

## EDMOND JOHN MELVILLE

Dr. Edmond J. Melville of St. Petersburg died suddenly on November 28, at the age of 72. A world traveler, he was widely known for his articles and books on travel.

The Pinellas County Medical Society, at a meeting held December 6, passed the following resolutions on the death of Dr. Melville:

WHEREAS, the Lord has seen fit to remove from our membership one beloved member; be it

RESOLVED, That the Pinellas County Medical Society express its sincere sympathy by action at its regular meeting held at Clearwater, Florida, this sixth day of December, 1940. Be it further

RESOLVED, That such action be sent in writing to the widow and to the Journal of the Florida Medical Association for publication and be spread upon the minutes of this Society.

Dr. Edmond J. Melville died at the age of 72 at his home in St. Petersburg, Florida from an apparent heart attack. He came to St. Petersburg twenty-two years ago from St. Albans, Vermont. He received his medical degree from Queens College, Kingston, Ontario. During the World War he served as a Major in the United States Medical Corps. He has been a member of the Pinellas County Medical Society for twenty years and he has also been active in the Knights of Columbus and Elks Lodges.

Dr. Melville was a physician of fine ability, respected and admired by his colleagues. He is survived by his widow, Mrs. May Melville, and two sisters, Mrs. Mary Ann Hogan, Kingston, Ontario, and Mrs. Nora Brown, New York City.

## COMPONENT COUNTY SOCIETIES

### DADE

At the Annual Election of Officers held by the Dade County Medical Society in December, the following were selected to head the Society for 1941:

Dr. C. Larimore Perry—*president*.

Dr. T. O. Otto—*vice president*.

Dr. Herbert Eichert—*secretary*.

Dr. W. L. Fitzgerald—*treasurer*.

\* \* \*

### DUVAL

On the evening of December 3, the Duval County Medical Society elected its officers for 1941. The result of the election was as follows:

Dr. Ernest B. Milam—*president-elect*.

Dr. James M. Bryant—*vice president*.

Dr. F. Gordon King—*secretary*.

Dr. Alan Brown—*treasurer*.

Dr. S. R. Norris was installed as president of the Society, succeeding Dr. Charles B. Mabry, retiring president.

## ESCAMBIA

Dr. R. W. Kissane, director of the Department of Cardiology of the Ohio State University, was guest speaker at a joint meeting of the Escambia County Medical Society and the Staff of the Pensacola Hospital, on the evening of December 3. His subject was "The Traumatic Heart."

\* \* \*

## HILLSBOROUGH

At the annual meeting of the Hillsborough County Medical Society, the following officers, censors and delegates were elected to serve for 1941:

Dr. Robert G. Nelson—*president*.

Dr. B. W. Lowry—*vice president*.

Dr. J. S. Grable—*secretary-treasurer*.

*Censors*: Drs. L. B. Mitchell, B. W. Lowry, W. C. Blake.

*Delegates*: Drs. J. W. Alsobrook, T. C. Maguire, J. R. Boling, J. C. Pate, and W. M. Rowlett.

\* \* \*

## LAKE

Dr. Marion B. O'Kelley of Leesburg was elected president of the Lake County Medical Society at the annual meeting held in December. Dr. Louis R. Bowen of Eustis was elected vice president and Dr. Clyde Bowie of Leesburg was named secretary-treasurer. Drs. M. B. O'Kelley and W. L. Ashton were named delegates to the next State Convention.

Dr. M. M. Hannum of Eustis spoke on the participation of physicians in the selective service program. A guest at this meeting was Dr. Terry Bird, former director of the Lake County Health Department, who is now medical director of the State Crippled Children's Commission. Dr. Ashton presided at the meeting

\* \* \*

## LEE

The Lee County Medical Society is this year headed by the following officers, elected at a meeting of the Society held on December 17:

Dr. M. F. Johnson—*president*.

Dr. A. S. Byle—*vice president*.

Dr. H. Quillian Jones—*secretary-treasurer*.

Dr. H. J. Stipe—*delegate*.

Dr. H. Quillian Jones—*alternate*.

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## MARION

The annual Election of Officers, held by the Marion County Medical Society in December, resulted as follows:

Dr. E. G. Peek—*president*.

Dr. C. W. Mimms—*vice president*.

Dr. Harry F. Watt—*secretary-treasurer*.

\* \* \*

## ORANGE

The following officers were elected by the Orange County Medical Society for 1941, at the December meeting of the Society:

Dr. Frank D. Gray—*president*.

Dr. Spencer Folsom—*president-elect*.

Dr. J. F. Gardner—*vice president*.

Dr. Fred Mathers—*secretary*.

Dr. H. C. Ingram—*treasurer*.

\* \* \*

## PALM BEACH

Dr. W. O. Arnold was elected president of the Palm Beach County Medical Society at a meeting held December 23. Other officers elected were: Dr. J. R. Sory, vice-president; Dr. Victor Clarholm, secretary, and Dr. F. K. Herpel, treasurer.

\* \* \*

## PASCO-HERNANDO-CITRUS

As one of the last official actions of Dr. W. H. Walters, president of the Pasco-Hernando-Citrus County Medical Society, it was fitting that he should entertain that society at his home in Lacoochee Thursday evening, December 12. A quail dinner was served by Dr. Walters and those in attendance enjoyed an unusually pleasant evening.

The newly elected president who will take over the responsibilities of that office for the year 1941, is Dr. W. B. Moon of Crystal River. The other officers are Dr. W. W. Jones of Dade City, first vice-president; Dr. S. C. Harvard of Brooksville, second vice-president; and Dr. G. R. Creekmore of Brooksville, re-elected secretary-treasurer. Dr. Creekmore has served for many years as secretary-treasurer of this county medical society and has been recognized as a very active and capable worker. Meetings of this society are held regularly and Dr. Creekmore, as secretary, has been very prompt in reporting the activities to the State Association.

Those present at the last meeting of the year were Drs. Bradshaw, Creekmore, Harvard, Jones, Manley, Moon, Simmons, Sistrunk and

Walters. A unanimous vote of thanks was given the retiring president, Dr. Walters, for the entertainment in his home.

\* \* \*

## PINELLAS

The Pinellas County Medical Society held its meeting of December 6 at the Palm Cafeteria, Clearwater. Four papers constituted the scientific program:

"A Case of Recurrent Chills"—

P. H. Guinand.

"An Interesting Abdominal Case"—

J. Marvin Kent.

"Infant Feeding"—Grace Whitford.

"The Unusual Appendix"—M. E. Black; discussion opened by John Hagood and L. B. Dickerson.

The second meeting of the month was held on the evening of December 20 at the Shrine Club, St. Petersburg. The following scientific program was presented:

"Case Reporting" (5 min. each) opened by F. E. Whaley.

"Five Minute Talk"—R. H. Knowlton.

"The Yesterday of Medicine"—M. A. Nickle; discussion opened by Grace Whitford and Alvin J. Wood.

"Sight or Insight?"—Ansley C. Moore.

\* \* \*

## POLK

Dr. Bruce R. Tinkler of Lake Wales was elected president of the Polk County Medical Society at a meeting held at Winter Haven December 4. Other officers are Dr. L. L. Lancaster, Bartow, vice president; Dr. Edgar Watson, Lakeland, secretary-treasurer.

To the Board of Censors were named Drs. Herman Watson, T. H. Roberts and R. L. Wilhoyte. Delegates selected were: Drs. James Boulware, Herman Watson and R. L. Cline; alternates—Drs. R. H. Mooty, J. L. Hargrove and J. F. Wilson.

\* \* \*

## SEMINOLE

Officers elected by the Seminole County Medical Society to serve for the ensuing year are:

Dr. K. R. Bell—*president*.

Dr. G. S. Selman—*vice president*.

Dr. T. F. McDaniel—*secretary-treasurer*.



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## VOLUSIA

The Volusia County Medical Society held its Election of Officers on December 10, with the following result:

Dr. J. R. Chandler—*president*.

Dr. W. C. Pay—*vice president*.

Dr. R. L. Miller—*secretary-treasurer*.

The scientific program consisted of a symposium on "Transfusion and Plasma Therapy", presented by Drs. Evans B. Wood, J. Ralston Wells, and Hugh West.

\* \* \*


## WALTON-OKALOOSA

To the Walton-Okaloosa County Medical Society goes the honor of being the first 100% paid society for 1941. Heading this society are: Dr. A. G. Williams, Lakewood, *president*; and Dr. R. B. Spires, DeFuniak Springs, *secretary*.

## Index to Advertisements

## THIS ISSUE

Allen's Invalid Home .....	365
American Optical Co. ....	363
Attwood, J. K., Pharmacist .....	369
Brawner's Sanitarium .....	362
Coca-Cola Co. ....	323
Combs Funeral Homes (Ambulance) .....	368
Cook County Grad. Sch. of Medicine .....	365
Drew, H. & W. B. Co. ....	367
Everhart Surgical Supply Co. ....	366
Ferguson Undertaking Co. (Ambulance) .....	368
Florida Medical Directory .....	364
Florida Sanitarium & Hospital .....	364
Hand, Carey (Ambulance) .....	368
Holland-Rantos, Inc. ....	328
Hoye's Sanitarium .....	369
Hynson, Wescott & Dunning .....	362
Kyle, S. A. ....	369
Lilly and Company, Eli .....	330
Mead Johnson & Co. ....	372
Medical Writing Service .....	351
Miami-Battle Creek, The .....	371
Miami Retreat, Inc. ....	366
Miami Surgical Co. ....	361
Parke, Davis & Co. ....	326
Petrolagar Laboratories, Inc. ....	322
Philip Morris & Co., Ltd., Inc. ....	325
Physicians Casualty Assn. ....	368
Randolph's Sanitarium, Dr. ....	361
Sharp & Dohme .....	329
S. M. A. Corporation .....	359
Southeastern Optical Co., The .....	367
Squibb & Sons, E. R. ....	324
Sun-Ray Park Health Resort .....	363
Surgical Supply Co. ....	367
Tucker Sanatorium, Inc. ....	365
Tulane University .....	361
Upjohn Co., The .....	327
Wyeth & Bro., John .....	361

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We like to have our articles represent news from every organized county in the state and presented in such a way as to be readable, interesting and educational. For this reason we are asking you to be prompt in sending in your news items. Please make them brief and to the point, covering every detail of important information which might be of interest to other auxiliaries and which would reflect credit to our state.

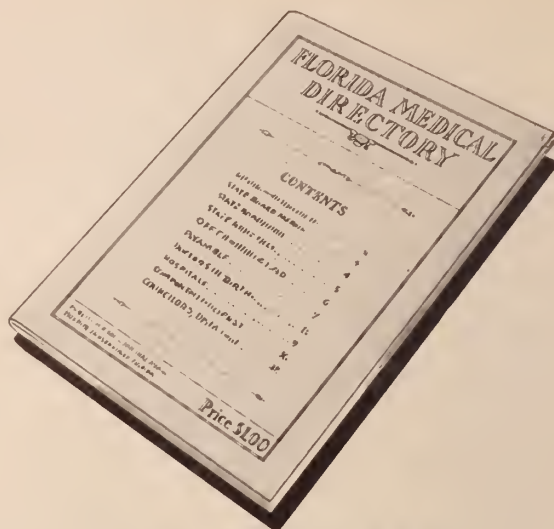
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2. Also clip and file other items concerning Auxiliary activities.
3. Immediately following meetings of the Auxiliary send to the state Chairman of Press and Publicity a full report of the meeting, giving the following information: date, place and kind of meeting, number present, program, reports of committees, business transacted. Give list of new officers and committee chairmen following elections. Keep in mind that the object of your report is to inform



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6. Send to your State Chairman as soon as published two copies of such newspaper items as may have been published. One copy is for your state archives and one is for your state's page in the Regional Scrap Book. Give names and dates of newspapers from which clippings are taken.
7. Cooperate with your President in stimulating in every way possible the regular reading of the Woman's Auxiliary Department in your State Medical Journal, and the Auxiliary letter in the A. M. A. Bulletin.
8. Compile in loose-leaf book form material which your Auxiliary may wish to keep for future officers and members, i. e., newspaper clippings, clippings from your Medical Journals and from the A. M. A. Bulletin, programs and important letters, and other articles not included in the Recording Secretary's book. Carbon copies of your official reports may be well included in this collection.

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S. F. 2 Surgeon's Report  
S. F. 3 Employer's Supplementary Report of Injury  
S. F. 4 Agreement as to Compensation  
S. F. 5 Final Compensation Settlement Receipt  
F. I. C. 6 Notification of Securing Compensation

F. I. C. 7 Employer's Notice to Reject  
F. I. C. 7A Employee's Notice to Reject  
F. I. C. 8 Employer's Notice to Waive Exemption  
F. I. C. 9 Final Medical Report  
F. I. C. 10 Employee's Notice of Injury to Employer  
F. I. C. 11 Election of Employee where a Third Party is Involved

F. I. C. 12 Notice to Controvert Payment of Compensation

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STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville....	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:			
1—Northwest .....	B. A. Wilkinson, Tallahassee .....	Stewart Thompson, Jacksonville....	Tallahassee, 1941
2—North Central .....	William S. Nichols, Lake City.....	" " "	Gainesville, 1941
3—Northeast .....	Robt. B. McIver, Jacksonville.....	" " "	St. Augustine, 1941
4—Southwest .....	W. C. McConnell, St. Petersburg .....	" " "	Bartow, 1941
5—South Central .....	A. M. Sample, Ft. Pierce.....	" " "	Orlando, 1941
6—Southeast .....	Kenneth Phillips, Miami.....	" " "	Ft. Lauderdale, 1941
Alabama Medical Association.....	Samuel A. Gordon, Marion.....	D. L. Cannon, Montgomery.....	Mobile, Ala., Apr. 15-17, 1941
Georgia, Medical Assn. of.....	J. C. Patterson, Cuthbert.....	E. D. Shanks, Atlanta.....	Macon, May 13-16, 1941
Florida—			
Chapter, Am. College Phys.....	Louie M. Limbaugh, Jacksonville .....	Kenneth Phillips, Miami.....	Jacksonville, 1941
State Dental Society .....	I. W. Shields, Miami.....	W. P. Wood, Jr., Tampa.....	Hollywood, 1941
Soc. of Derm. and Syph.....	Alan Brown, Jacksonville.....	Lauren M. Sompayrac, Jacksonville .....	Jacksonville, 1941
East Coast Medical Association.....	J. S. Stewart, Miami.....	J. Ralston Wells, Daytona Beach.....	
State Hospital Association.....	W. L. Shackelford, W. Palm Bch.....	Mr. T. F. Alexander, Jacksonville .....	New Orleans, 1941
Assn. of Industrial Surgeons.....	A. M. Bidwell, Tampa.....	T. H. Roberts, Lakeland.....	Jacksonville, 1941
Medical Postgraduate Course.....	Turner Z. Cason, Jacksonville.....	Chairman	
Soc. of Ophthal. & Otol.....	H. Marshall Taylor, Jacksonville .....	Carl E. Dunaway, Miami.....	Jacksonville, 1941
State Nurses Association.....	Mrs. M. Stetson, St. Petersburg .....	Mrs. Phyllis Leonard, St. Augustine .....	
Pediatric Society .....	Warren W. Quillian, Coral Gables .....	G. N. Leonard, Miami Beach.....	Hollywood, Nov. 1941
Public Health Association .....	L. J. Graves, Tallahassee .....	E. M. L'Engle, Jacksonville.....	Orlando, December, 1941
Radiological Society .....	J. H. Lucinian, Miami.....	E. M. Hendricks, Ft. Lauderdale.....	Jacksonville, 1941
Railway Surgeons' Association .....	Leland F. Carlton, Tampa.....	W. C. Page, Cocoa.....	Jacksonville, 1941
State Pharmaceutical Association .....	Mr. P. A. Penberthy, Tampa.....	Mr. R. K. Richards, Ft. Myers.....	Jacksonville, May, 1941
Tuberculosis & Health Assn.....	Mr. E. M. Newald, Orlando.....	Mrs. C. R. Whitaker, Eustis.....	
Chattahoochee Valley Med. Assn.....	Frank K. Boland, Atlanta.....	Robert B. McIver, Jacksonville.....	Jacksonville, July 8-10, 1941
1st Coast Clinical Society.....	J. S. Turberville, Century.....	J. C. McSween, Pensacola.....	Pensacola, October, 1941
E. Sec., Am. Cong. Phys. Ther.....	E. C. MacCordy, St. Petersburg.....	Kenneth Phillips, Miami.....	Chattanooga, May, 1941
Southeastern Surgical Congress.....	Irvin Abell, Louisville.....	B. T. Beasley, Atlanta.....	Richmond, Va., Mar., 1941
Northern Medical Association.....	Paul H. Ringer, Asheville.....	Mr. C. P. Loranz, Birmingham.....	St. Louis, Nov., 1941
Wannsee River Medical Society.....	T. H. Bates, Lake City.....	H. S. Howell, Lake City.....	

## COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	Amsle H. Lisenhy, M.D. Panama City	William C. Roberts, M.D. Panama City		10		A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1463 Pensacola	2nd Tuesday 8:00 P. M.	46		
	Walton-Okalosa	A. G. William, M.D. Lakewood	B. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington-Holmes	R. H. Segrest, M.D. Bonifay	L. H. Paul, M.D. Bonifay		7		
	Franklin-Gulf	Thos. Meriwether, M.D. Meriwethcka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7		A-2-'41 B. A. Wilkinson, M.D. Tallahassee
	Jackson *Calhoun	W. R. Wandeck, M.D. Marianna	R. N. Joynsr, M.D. Marianna	2nd Tuesday 7:30 P. M.	10		
	Leon-Gadsden-Liberty- Wakulla-Jefferson	Sterling E. Wilhoit, M. D. Quincy	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	39		Northwest District (A) Tallahassee 1941
	Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	10		B-3-'41 W. S. Nichols, M.D. Lake City
	Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		8		
	Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	8		
B	Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30		B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion *Levy	Eugene G. Peek, M. D. Commercial Bk. & Tr. Bldg. Ocala	Harry F. Watt, M. D. Box 146 Ocala	3rd Thursday 12:30 P. M.	25	16	
	Pasco-Hernando- Citrus	William B. Moon, M. D. Crystal River	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	13		North Central District (B) Gainesville 1941
	Duval *Clay, Nassau	S. R. Norris, M. D. Medical Arts Bldg. Jacksonville	F. Gordon King, M. D. 422 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	186	60	C-5-'41 R. B. McIver, M.D. Jacksonville
	St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10		N. E. District (C) St. Augustine 1941
	Putnam	G. M. Zeagler, M.D. Glendale Hospital Palatka	Bernard E. Kane, M.D. Box 419 Crescent City	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	11		C-6-'42 Maximilian Stern, M.D. Daytona Beach
	Volusia *Flagler	J. R. Chandler, M. D. 110 S. Ridgewood Ave. Daytona Beach	R. L. Miller, M.D. 258½ S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	40		
	Hillsborough	Robert G. Nelson, M. D. 712 Citizens Bank Bldg. Tampa	James S. Grable, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	108	24	D-7-'41 W. C. McConnell, M.D. St. Petersburg
	Manatee	W. E. Wentzel, M.D. Box 245 Bradenton	Wm. D. Sugg, M. D. Bradenton Bank Bldg. Bradenton	3rd Tuesday 7:00 P. M.	14		
	Pinellas	Major N. W. Gable, M. C. 116th Field Artillery Camp Blanding	W. C. McConnell, M.D. 815 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	106	84	
D	Sarasota	John C. Patterson, M. D. Palmer Natl. Bk. Bldg. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	15		
	DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Booram, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	22		D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	M. F. Johnson, M. D. Box 1266 Fort Myers	H. Quillion Jones, M.D. 18-20 Leon Bldg. Fort Myers	3rd Friday 7:30 P. M.	14		
	Polk	Bruce R. Tinkler, M. D. Lake Wales	S. Edgar Watson, M. D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62		Southwest District (D) Bartow 1941
	Brevard	I. M. Hay, M.D. Melbourne	I. K. Hicks, M.D. Melbourne	3rd Wednesday	11		E-9-'42 J. R. Chappell, M.D. Orlando
	Lake *Sumter	Marion B. O'Kelley, M.D. 203 First Natl. Bank Bldg. Leesburg	Clyde F. Bowie, M. D. 1112 W. Main St. Leesburg	1st Thursday 12:30 P. M.	17	1	
	Orange *Osceola	Frank D. Gray, M. D. 19 W. Washington St. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87		
	Seminole	Kenneth R. Bell, M. D. 208 Meisch Bldg. Sanford	Thomas F. McDaniel, M. D. Seminole County Bk. Bldg. Sanford	2nd Monday 7:00 P. M.	13		South Central District (E) Orlando 1941
	St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	18		E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	38		F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	Wilbur O. Arnold, M. D. Box 1785 W. Palm Beach	Victor Clarholm, M. D. Box 70 W. Palm Beach	4th Monday 8:00 P. M.	68		S. E. District (F) Ft. Lauderdale 1941
	Dade	C. Larimore Perry, M. D. 525 N. E. 15th St. Miami	Herbert Eichert, M.D. 538 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	322		F-12-'41 Kenneth Phillips, M.D. Miami
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5		

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VOLUME XXVII  
No. 8

Jacksonville, Florida, February, 1941

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## CONTENTS

THE N.Y. ACADEMY  
OF MEDICINE.

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LIBRARY

Thoracoplasty Program at the Florida Tuberculosis Sanatorium	
L. H. Kingsbury, M. D., and W. O. Fowler, M. D., Orlando	385
Chronic Empyema	John W. Snyder, M. D., Miami 391
Treatment of Neisserian Arthritis with Special Reference to Intradermal Therapy	T. Hartley Davis, M. D., Bradenton 396
Rheumatic Chorea in a Negro	Milton S. Saslaw, M. D., Miami 399
Botulism. Its Treatment	M. E. Black, M. D., Clearwater 400
Hyperactive Carotid Sinus Syndrome	Robert J. Needles, M. D., St. Petersburg 403
Editorials: New State Health Officer; Pre-Convention Meeting; Bundles for Britain	408
Examinations for Appointments in the Medical Corps of the U. S. Navy	409
The Quinine Industry	410
An Impostor	410
Councilors' Reports	410
Marriages and Deaths	411
State News Items	411
Component County Societies	416
Advertisers' Notes	418
Abstract Department	420
State and Sectional Meetings	421
Woman's Auxiliary	422
Component Societies by Districts	423

### NEXT SESSIONS

American Medical Association, Cleveland, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, St. Louis, November, 1941



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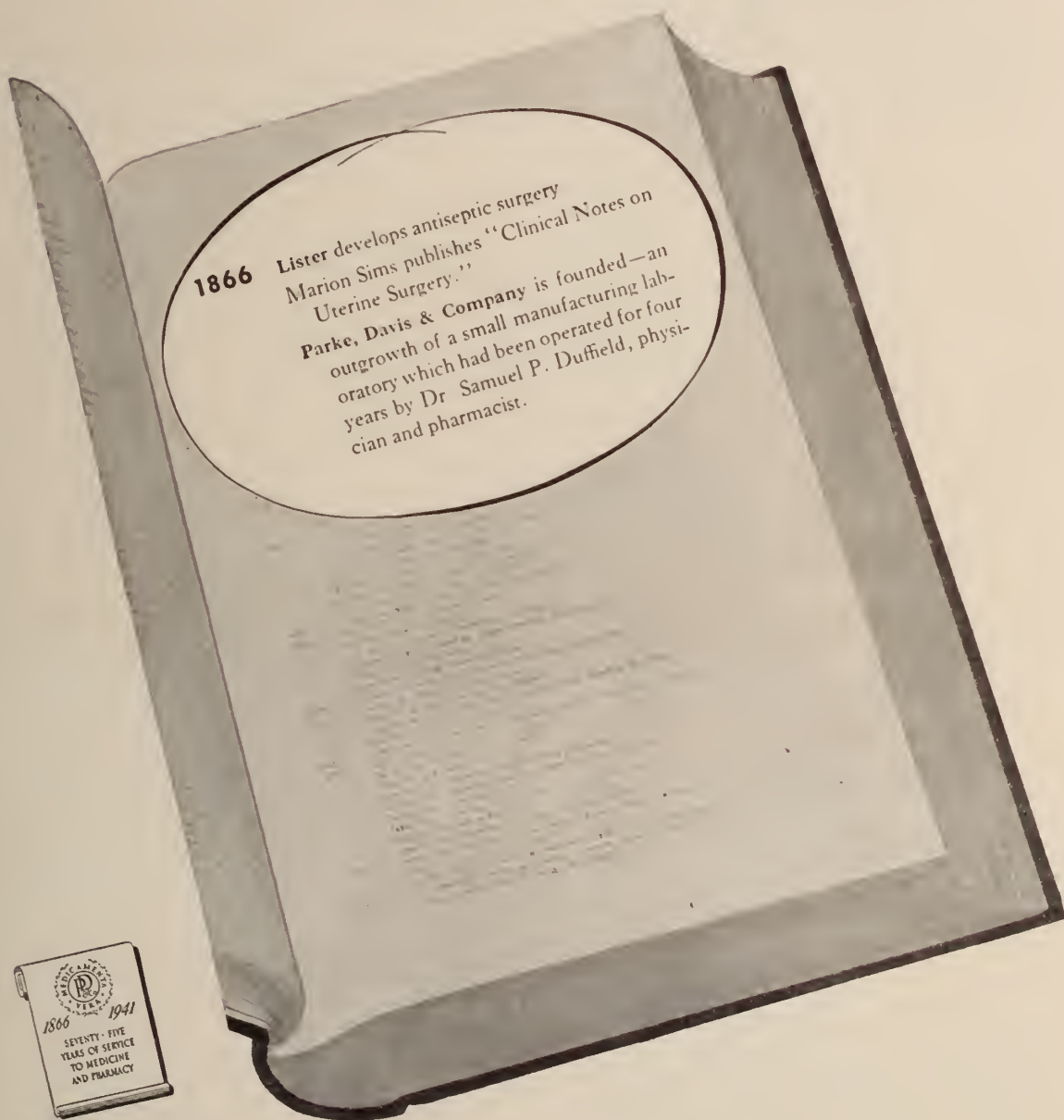


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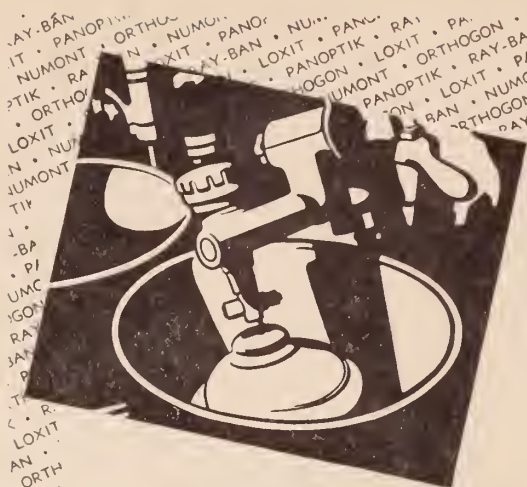


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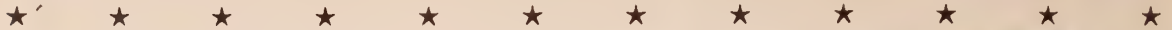
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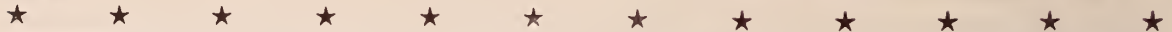
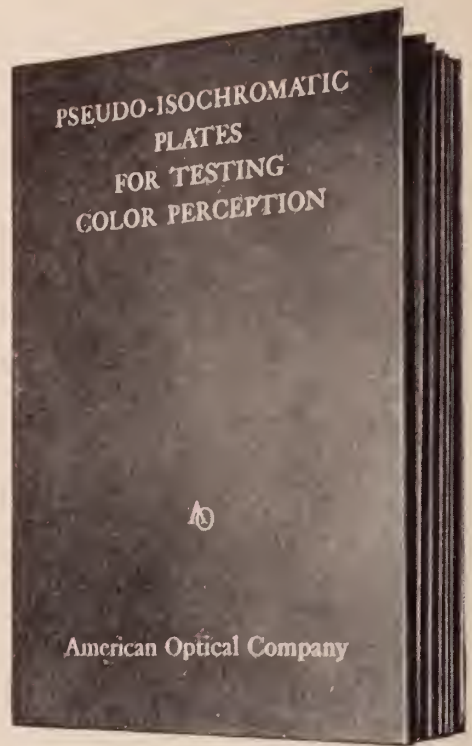
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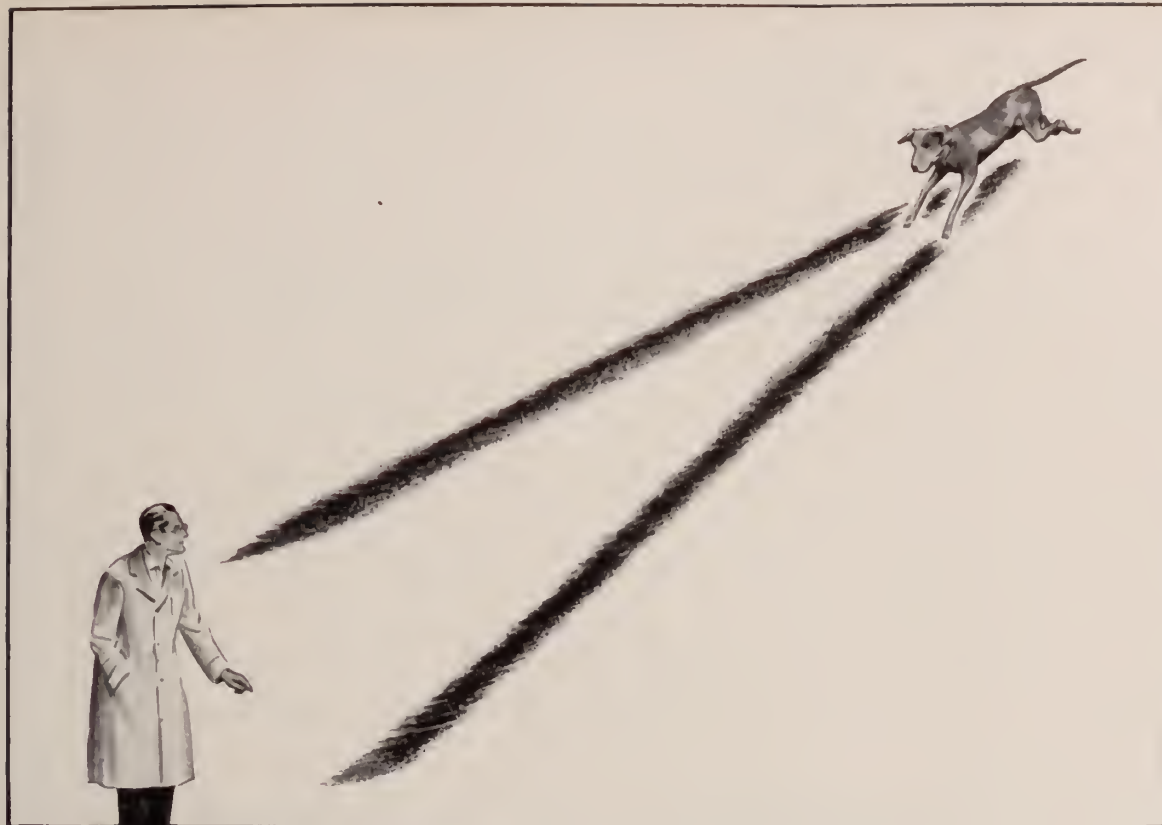


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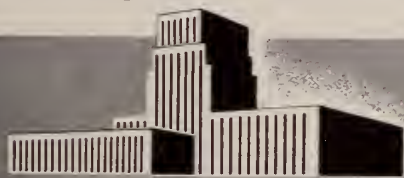
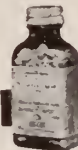
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Although earlier research workers had devoted much effort to the problem, it was Dr. Joseph Goldberger and Dr. W. H. Sebrell who, in 1930, supplied the necessary clue by their discovery of the beneficial effect of liver therapy in this deficiency disease.

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patient, tireless work with great batches of liver extract that narrowed the search to the few vital crystals which proved to be nicotinic acid. He and his co-workers at the University of Wisconsin—Madden, Strong, and Woolley—fed a few of these crystals to a mongrel dog suffering from blacktongue. In less than a day the symptoms had begun to disappear. Thereafter it remained for Dr. T. D. Spies in Birmingham, Alabama, and others, to apply nicotinic acid to their clinical work on humans, with what result the world knows.

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## THORACOPLASTY PROGRAM AT THE FLORIDA TUBERCULOSIS SANATORIUM

A PRELIMINARY REPORT

L. H. Kingsbury, M. D.

and

W. O. Fowler, M. D.

Orlando

Thoracoplasty, if we are to believe the historians, is the oldest operation known to man, for the Lord took a rib from Adam to make Eve. More recently, in 1885, De Cérenville applied the knowledge of the treatment of chronic empyema by thoracotomy to tuberculosis, adding a new surgical measure whereby the removal of short segments of ribs brought about diminution in the size of the cavity in this disease. The principle of this form of collapse was improved upon by Brauer and Friedrich in 1907; they proposed extensive collapse of the lung, as adequate as by pneumothorax, by the removal at one operation of the ribs, from the second to the tenth, including the periosteal membranes and intercostal muscles.

It soon became obvious that this was a highly dangerous undertaking. The procedure was refined by Wilms of Heidelberg, who also applied the knowledge of the treatment of empyema, as published by Gourdet, and removed shorter segments of ribs one through eight, including the paravertebral angles. This operation produced fair results with a relatively lower mortality, but was not sufficiently promising to popularize the procedure. It remained for Sauerbruch, in 1911, to design a multiple stage operation with subperiosteal resection of the first to the ninth or tenth ribs. One most important modification of the basic operation was the lung mobilization or apicolysis originated by Semb of Oslo, in 1934, which makes possible selective collapse of the lung increasing the scope of the indications. The tendency at present is toward the removal of longer segments in an adequate number of stages.

During the past two decades the mortality has steadily declined from the figure of 40 or

50 per cent at the time of Wilms and Sauerbruch, to an accepted average of from 10 to 15 per cent.

In the modern sanatorium up to 75 per cent of all cases receive some form of surgical collapse. Tuberculosis has in consequence become definitely a surgical disease. In Florida the sanatorium facilities are extremely limited. It is, therefore, the primary objective of this presentation that the physicians of the state have an opportunity to become conversant with the basic principles of thoracoplasty, and later of other forms of the treatment. By this means it is believed that the existing facilities may be utilized to the utmost advantage. The decline in mortality from tuberculosis can be maintained only by close association between the physician of the profession at large and the Sanatorium physician and surgeon.

### INDICATIONS FOR THORACOPLASTY

1. Chronic, essentially unilateral disease in which pneumothorax or other reversible procedures and their adjuncts have failed to bring about adequate collapse.
2. Contralateral lesions must not be more than minimal in amount and must be stable from the standpoint of serial roentgen studies.
3. Respiratory function permitting not less than 30 per cent of normal vital capacity.
4. Cardiovascular-renal function must be essentially sound.
5. Age limit of 50 years is to be violated with considerable caution.

### PREOPERATIVE PREPARATION OF PATIENTS

1. Thoracoplasty is scheduled to take place at the time the patient appears to be at the peak of improvement brought about by bed rest and measures of collapse therapy. Though inadequate in themselves, these expedients serve to bring about sufficient improvement to make thoracoplasty possible. It is to be pointed out that long delay under inadequate forms of collapse almost inevitably permits decline of the general condition and dissemination of the disease.

2. All persons receiving this treatment are digitalized in order to counteract damage which must certainly be present after long periods of toxic illness. This measure serves to improve the tone of the heart muscle in these

debilitated bed-ridden patients.

3. Electrocardiograms and physical examinations are carefully recorded to determine gross cardiac lesions in order that patients with such lesions may not be subjected to a surgical disaster.

4. Measured renal function must be within reasonably normal limits, and in cases of infection of a tuberculous kidney thoracoplasty is not attempted. Patients are taught the use of the urinal and bed pan prior to their embarkation on the long surgical voyage.

5. Preceding thoracoplasty, a diet high in carbohydrates is supplemented with solutions of glucose, given orally, to fortify the liver.

6. For each and every operation the patient is provided with a blood donor whose blood is typed and cross-matched.

7. An attempt is made to clear up any acne pustules over the site of the incision before the time for surgery arrives. The back is prepared with soap and water over a period of three days and finally given a sterile preparation with alcohol and ether and covered with sterile towels the night before operation.

#### TECHNIC OF OPERATION

In its present state thoracoplasty is a selective procedure of from one to three or more operations or stages spaced at intervals of from two to three weeks. The uppermost ribs and transverse processes are removed subperiosteally; the extent of removal is gauged by the patient's ability to withstand trauma and his requirements for collapse of the diseased tissues. There are refinements in the extent and design of the operation permitting a wide range of individualization to secure the twin purposes of, first, the production of adequate collapse, and second, the conservation of normal, undiseased tissue. It goes without saying that failure in either of these fundamental aspects may well be worse than no surgery at all.

1. Cyclopropane, with proper electrostatic precautions, is the anesthetic of choice and was used almost exclusively in the cases included in this report. Other anesthetics are advocated and used successfully, but it is to be noted in passing that ether in any combination or form is contraindicated in pulmonary tuberculosis.

2. A paravertebral incision curving around the dorsal border of the scapula is made for the first stage. The first three ribs and transverse processes are removed subperiosteally,

leaving intact the bone-forming membranes and intercostal muscles. This procedure may be modified to include the apicolysis of Semb with lung mobilization, or the myoplastic type of operation advocated by Butler; in either case the removal of transverse processes is not of paramount importance in these variations. The first rib must be adequately removed as it forms the curtain rod of the thorax on which hang the rest of the ribs, whether natural or regenerated, and failure to do so may defeat an otherwise successful operative result. The importance of the removal of adequate portions of ribs and transverse processes cannot be over-emphasized. It may even be necessary to interpose an anterior stage for the removal of the anterior remnants of three or four ribs in cases of giant cavitation or unusually extensive disease.

3. An interval of three weeks between stages was found optimum in this series of cases. Each subsequent operation after the first stage is planned and designed according to flat plate and Bucky roentgen findings observed following the preceding stage. The incision of the lower portion of the scar of the old wound and its extension curving downward into the posterior axillary line constitute the approach to the subsequent stages. The fourth, fifth and sixth ribs and transverse processes are removed at the second stage. The extent of the collapse produced, as defined by roentgenograms, determines the number of operations required to complete the closure of the cavity. It is interesting to note that in one leading clinic in this country there was a progressive increase in the feature of cavity closure from 52 per cent in 1929 to 85 per cent in 1937 with the mortality declining at the astounding rate of from 43.4 to 5.4 per cent.

4. Careful hemostasis is maintained, and a Penrose drain is incorporated in each wound.

#### POSTOPERATIVE CARE

1. Postoperative care, as in the case of preoperative preparation, is as important as the operation itself and should be directed by the surgical staff in order to recognize complications in time and thus avoid catastrophes often not apparent to others.

2. Preventive treatment is the keynote in coping with shock. Routine transfusion, together with placing the patient in the Trendel-



enberg position, is used after each stage.

3. Oxygen at the rate of from four to six liters per minute by nasal mask or catheter is administered during the first twenty-four hour period, or longer as needed.

4. Adequate intake of fluids is cared for parenterally at the outset by the use of intravenous injections of glucose until oral tolerance makes the maintenance of fluid balance possible.

5. In all cases of three stages or more the patient is placed on compression therapy in the form of a hard pillow as soon as possible after completion of the operation in order that his weight upon this hard pillow may produce as much compression of the newly formed ribs as possible, thereby improving the character of the collapse. In some cases surgical revision is necessary either because the original thoracoplasty was improperly designed as to scope or because of the accident of delay, for some reason, between stages.

#### RESULTS

With the primary purpose of presenting thoracoplasty as a part of the integrated Sanatorium program, we submit a brief resume of the results obtained, in the form of a preliminary study. The end results must be defined after a much longer period of observation since most of the thoracoplasties are not yet one year old. Of the 900 patients admitted to date, 6 per cent were nontuberculous; of the remainder 65 per cent received some form of

surgical collapse. In seventy of these cases, or 7.7 per cent, the patients were treated by thoracoplasty. This major surgical procedure is only now assuming proportions of near equality of supply and demand after two full years in the process of establishment.

Figure 1 illustrates the far advanced case of pulmonary tuberculosis with a giant cavitation.

Figure 2 illustrates this case following three posterior paravertebral stages of thoracoplasty with a subperiosteal resection of the upper ten ribs and their transverse processes and a fourth, or anterior, stage at which the entire anterior remnants of the second, third, fourth, and fifth ribs were removed.

Figure 3 is the Bucky film of the same case illustrating the important point regarding the detection of cavitation after thoracoplasty. In contrast with ordinary roentgen technic, as shown in figure 2, the residual of the cavity is still clearly distinguishable in this Bucky technic and close examination reveals a clearly perceptible fluid level in the cavity itself.

These illustrations also demonstrate the general points of basic interest which have been cited in the method of resection, stressing particularly the removal of generous sections of the rib itself, and, as is clearly illustrated, there may be a residual even with most extensive removal of the transverse processes. From the standpoint of a clinical result this case is not a



FIG. 1, CASE I



FIG. 2, CASE I



FIG. 3, CASE I

## CASE I

C. C., a white male, 32 years of age, was admitted Sept. 7, 1938. The first hemorrhage had occurred on Oct. 15, 1933; the patient had continued to work hard until April 1939 in spite of repeated small hemorrhages. At that time he went to bed and remained there until admission when he had full bath room privileges. Three posterior and one anterior stage of thoracoplasty were begun Oct. 12, 1939 and completed Dec. 15, 1939 with complete removal of the upper five ribs and transverse processes and generous resection of ribs 6, 7, 8, 9 and 10 and transverse processes—illustrated by ordinary flat plate and by Bucky technic in figures 1, 2, and 3.



FIG. 5, CASE II



FIG. 6, CASE II

## CASE II

S. P., a white female, aged 23 years, was admitted Dec. 27, 1938; the onset of hemorrhage had been in February of 1937, the patient had been treated in a neighboring State with artificial pneumothorax begun in June 1937; and continued until the time of admission. An apical cavity on the right had been present throughout. Right pneumothorax was established shortly after admission to the Sanatorium but the pleural space was found to be obliterated in an area described by the first rib. A two stage apicolysis and thoracoplasty, performed after a period of observation of approximately four months, was completed May 23, 1939 with the removal of generous segments of the upper six ribs; the angle of the scapula and the site of the new upper limit of the lung were established at the level of the sixth vertebral body—illustrated in figures 4, 5, and 6.



FIG. 4, CASE II

typical example since it does not fulfill the three basic requirements, namely, cavity closure, conversion to negative sputum, and the elimination of clinical symptoms. It does, however, stress the importance of postoperative compression therapy, and it is hoped that by diligently lying upon the hard pillow this patient may close the cavity in the course of time and thus successfully complete the case.

Figure 4 represents a far advanced case of tuberculosis in which the lung is in need of a

selective collapse.

Figure 5 represents the Semb modification of thoracoplasty with apicolysis, applied in a case in which six ribs were resected, together with a portion of the scapula, to prevent its locking behind the seventh rib and embarrassing the function of the shoulder girdle. Note that the apex was dropped to a new and lower level. The cavity is closed and the relatively normal tissues of the lower lobe are preserved.

#### PRESENTATION OF CASES

TABLE I—CASES AND CASE MORTALITY; NUMBER OF STAGES, AND STAGE MORTALITY

	No. Cases	Mortality	No. Operations	Stage (operation) Mortality
Thoracoplasties (Including Apicolyses, Straight Thoracoplasty, Revision Thoracoplasty)	70	8 11.4%	199	4.02%

TABLE II—BREAKDOWN OF CASE AND STAGE MORTALITIES INTO THREE DIFFERENT TYPES OF OPERATION

Straight Thoracoplasty	49 (5 Rev.)	3 6.8%	132	2.3%
Thoracoplasty and Apicolysis	18	3 16.7%	39	7.7%
Revision Thoracoplasty	3			
Straight Thoracoplasty Revised	5	2 25.0%	28	7.14%

TABLE III—CLASSIFICATION OF DISEASE

Stage of Disease	No. Cases	Percentage	Duration of Disease
Minimal	0	0	0
Moderately Advanced	8	11.5	3.95 years
Far Advanced	62	88.5	5.9 years

TABLE IV—RESULTS IN DISCHARGED CASES

	No. Cases	Discharged Classification		Sputum Negative	Cavity Absent by Bucky X-Ray
		Quiescent	App. Arrested		
Straight Thoracoplasty	7	2	5	5 or 71%	7 or 100%
Thoracoplasty and Apicolysis	4	0	4	4 or 100%	4 or 100%
Revision Thoracoplasty	1	0	1	1 or 100%	1 or 100%

TABLE V—TREND OF RESULTS IN CONVALESCENT PATIENTS REMAINING IN THE HOSPITAL

	No. Cases	Asymptomatic		Sputum Negative	Cavity Absent by Bucky X-Ray
		No.	%		
Patients in Hospital	50	34	68	25 or 50%	40 or 80%
Incomplete	2	0	0	0	
Convalescing in Hospital	48	34	70.8	25 or 52.1%	40 or 83.3%



## SUMMARY

1. A historical resume of thoracoplasty has been presented.
2. A general survey of the reported operative results has been made.
3. A preliminary report of one phase of the surgical program at the State Tuberculosis Sanatorium has been offered for consideration.

Note: We wish to acknowledge gratefully the valuable assistance of Dr. Kenneth A. Morris of Jacksonville in establishing the surgical program in the Florida Tuberculosis Sanatorium.

*State Tuberculosis Sanatorium.*

## DISCUSSION

*Dr. Kenneth A. Morris, Jacksonville:*

This report seems to me to be most worthwhile and conservative. I am sorry that Dr. Kingsbury could not go into statistics a little more because I think there is real value there.

In spite of the fact that this report comes from a new institution, the mortality figures will compare favorably with those of some of the oldest and best tuberculosis sanatoriums in the country. Few of you realize the tremendous amount of work involved and the difficulties that were encountered.

It is natural that at the start of this work only far advanced cases were admitted to the Sanatorium. Many of these cases did not meet the requirements for surgery. A good many of them had to have more extensive preparation before thoracoplasty could be carried out. The reason the mortality rate was so low was, I think, due in good part to the excellent postoperative and preoperative care they had.

Shock can be expected in practically all cases. Not only may there be shock from the removal of bone, but an unusual form of shock is incurred when the transverse processes and heads of ribs are exposed because the sympathetic ganglia are traumatized. This shock can come on in two or three minutes. Practically every one of these patients is given a transfusion immediately after operation.

For the success of thoracoplasty a great deal depends on the will to do enough surgery. One of the greatest factors causing unsatisfactory thoracoplasty is partial thoracoplasty. Insufficient rib resection and delay between stages are factors. Too often an effort is made to save the patient further operation. Too often we perform what Dr. Kinsella has termed the almost complete operation. I learned this through bitter experience. Often the patients do require operation in the future, and the mortality in revision operations is very high.

In May of 1938 Dr. Thompson asked me to help start the surgical work at the State Tuberculosis Sanatorium. When I started, I found that Dr. Kingsbury and Dr. Fowler knew much more about tuberculosis and surgical indications than I did. I learned a great deal from them. My contribution was chiefly in the way of a general surgeon.

Now a word about the history of the surgical treatment of tuberculosis in Florida. In 1929, Dr. J. Knox Simpson started a chest team in the Duval County Hospital, Jacksonville. Dr. Shaw, Dr. Limbaugh and I were members of that team. I remember the first thoracoplasty we did, the first in Florida. Dr. Simpson performed that operation, and I had the pleasure of helping him. I remember how delighted we were when we were able with much difficulty to remove one fourth of an inch of the first rib. Now, of course, no one is satisfied unless he removes all of the first rib and practically all of the second. This patient, incidentally, was alive last year,

and I believe is still alive today.

It is a pleasure to watch this work grow. We should all be proud of the State Tuberculosis Sanatorium at Orlando and the fine work done there.

*Dr. Duncan McEwan, Orlando:*

I well remember when Dr. Pol Coryllos came to this country and started his work in chest surgery and thoracoplasty. At that time he was working at Bellevue Hospital where he did some radical surgery. He did it all at one stage, taking out eight or ten ribs, and the patients would promptly die. But his experiments and the experiments of others in that line went on to develop chest surgery until today we have the results which Dr. Kingsbury and Dr. Fowler have reported from our own State Sanatorium. They have shown us what can be done with the patients having far advanced tuberculosis. They have emphasized, as Dr. Morris did, that adequate surgery has to be done. Their figures show that when the resection operations are insufficient, then mortality goes up. So I think that all of us interested in chest surgery have learned to do a little more than is really indicated rather than too little. In the cases where we do too little we have a return of symptoms and poor results.

I think we should emphasize to the doctors of the state the importance of the progressive work in tuberculosis that has been done at our State Sanatorium. As Dr. Kingsbury reported, it is too bad that so many far advanced cases have been sent there and such a high percentage of these cases have to have thoracoplasty. We should make a better effort to get these cases early, make an early diagnosis, and send the patients in as soon as possible to the Sanatorium; then a simpler means of collapse can be used. Many of these cases would not have to come to thoracoplasty.

I have certainly enjoyed this paper. We have been shown that even in these far advanced cases, with the careful and excellent surgery being done at the State Sanatorium, the patients can be returned to their communities as well. The cavities are closed, and they cannot spread the disease. Many persons have erroneous ideas when they look at roentgenograms of these patients and think that they will come back misshapen and crippled. I am sure, as you see them return to the community, you will realize that this is not true. Even when nine or ten ribs are removed, they come back afterward, and you have no idea that any such radical procedure was done. I think it well to remember this in our effort to help stamp out tuberculosis in the state of Florida.

*Dr. Fowler (concluding):*

I should like first to thank Dr. Morris for his contribution to the Sanatorium and his patient help in aiding us to institute an adequate surgical program.

Now, the purpose of this paper is not to sell the Sanatorium to the medical profession at all, but to show the profession what is being done to its patients when they come to the Sanatorium for treatment. These patients as you undoubtedly know, have been sick for a long, long time. A big majority of them have had some form of collapse therapy, that has failed. Assuming that these measures have failed and that the patient is to be sent to the Sanatorium, he tells his physician he wants to know what is going to happen to him when he gets there. The primary function of this paper is to let you know what is happening to these patients and what you may expect. We also tried to impress on you that the risk of thoracoplasty is not greater than from other procedures carried out at other hospitals.

I should also like to impress on you that these patients who have been critically sick for a number of years are apt to have a weakened heart. When you take into consideration the fact that the heart, overburdened for a long time, is embarrassed further by collapse of an entire lung, cutting down the pulmonary circulation by one half, you must realize that these patients have to be studied and carefully watched from a cardiac point of view to prevent failure of the right side. We very often digitalize these patients so that we will have a reserve to work on, because the disease has taken up much of their cardiac reserve.

There is another factor of possible interest to the profession as a whole. When a person has had tuberculosis for a number of years and has been treated in first one place and then another, you have to consider this patient as having chronic tuberculosis. If you feel that nothing more can be done, it probably is a good policy to interest him in consulting a competent chest surgeon to see if something cannot be salvaged in that particular case.

I should like to emphasize also, as Dr. Morris brought out, the embarrassment to the sympathetic nervous system. I have seen this in numbers of cases when there is a large amount of trauma over this system. We apply a sponge soaked with novocain to prevent extreme shock from embarrassment of the sympathetic nervous system.

We hope eventually to show the entire program of collapse therapy.

*Dr. Kingsbury (concluding):*

We wish to thank Dr. Morris and Dr. McEwan for their very timely remarks. There are so many ramifications in this problem both from the standpoint of the patient himself and from the technique of surgery that we could go on indefinitely.

In passing, I should like to extend to every doctor in Florida a hearty invitation to come to the Sanatorium and see what is happening to the patients.

I thank you.

## CHRONIC EMPYEMA

John W. Snyder, M. D.  
Miami

It is quite evident that if all factors which delay or prevent healing during the acute stage of pleural empyema could be recognized and obviated there would be no chronic empyema. The development of chronic empyema tends to leave the surgeon in a particularly exasperated and almost hopeless state of mind. He has found that resection of a rib and dependent drainage effect a cure in most instances, but that, unfortunately, in spite of careful treatment, the condition will occasionally lapse into a chronic state or recur after apparent cure. The question naturally arises: why the exception and how can it be prevented from occurring?

It must be admitted that the cause may be obscure and, if recognized, difficult or impossible to remove. In most cases, however, the cause can be diagnosed and its early removal will more readily effect a cure than will subsequent treatment of a chronic condition.

One of the most obvious causes is the physician's failure to recognize the presence of a pleural empyema. Curiously enough, such an effusion may be present for weeks or months though the patient has little fever and only a hacking cough. In the usual case the pus in time erodes the visceral pleura and evacuates

through the bronchial system. Such an anomaly is often wrongly diagnosed as lung abscess, and treatment is ineffectual until the condition is recognized as empyema with bronchial fistulae. Late surgical drainage in such cases is of doubtful effectiveness in closing the cavity although it promptly stops the purulent expectoration and permits marked improvement in the general status of the patient. Some type of plastic will usually be necessary before the cavity can be closed. Smaller pockets of pus may readily escape detection, particularly if they are interlobar or situated close to the mediastinum or the diaphragm. The physician's suspicious nature and the free use of the x-ray are the best safeguards against such an occurrence.

In many cases what may appear to be a persistent chronic empyema is only a fistula without a true empyematic cavity at its termination. Several explanations as to why the fistula has not healed are possible. Dense scarring of the walls of the fistula and a gradual growth of epithelium into the sinus may prevent healing. Again, osteomyelitis of a rib or deeply infected granulation tissue may maintain the fistula. Radical dissection of such a sinus with removal of all involved ribs is usually a short cut to cure since the patients are no longer seriously ill and can readily undergo such a minor procedure.

The difference between a chronic empyema and a persisting fistula is largely one of size, as the two conditions represent different stages of the same process. In empyema we have to deal with a real cavity which may be small or so large as to occupy the greater part of the thorax. It may open directly to the exterior or only by a narrow tortuous sinus. The amount of discharge may be great or small, depending largely on the size of the cavity. The natural query is: why has such a cavity not closed? There are several explanations.

The most common reason is that contracture or near closure of the drainage opening has taken place. As the opening closes smaller and smaller tubes are used for drainage until, finally, either no tube can be introduced, or the one which will pass is too small to carry off the secretions effectually. An error frequently made is that of considering a cavity clean when the purulent discharge ceases and then of withdrawing the tube to permit the cavity to heal.



Such a procedure courts disaster. At the inception of surgical drainage a generous opening should be made by resecting two or more ribs and the intervening intercostal muscles. A large opening should be maintained until only a fistula is left and this in turn should be made to heal from the bottom by very gradually shortening the tube as healing occurs. Such a course of treatment will often obviate the development of chronic empyema.

Whether rib resection and open drainage for acute empyema is proper or preferable cannot be considered in this discourse. I employ the closed type of drainage wherever possible and use the open type of drainage mainly when contending with bronchial fistulae or other complications. The important point is to determine how best to attain adequate drainage of the purulent collection.

Experience has shown that the costophrenic angle becomes obliterated early so that the floor of the empyematic cavity is found opposite the eighth or ninth rib. Drainage below this level will therefore be obstructed by the diaphragm, and above this level may be inadequate. In event of poor drainage this factor should be considered. In instances of encapsulated empyema, drainage must be established wherever pus is found though the point of drainage may not be ideally located.

Pockets and recesses may be closed off by the expansion of the lung or by pre-existing adhesion and in this state are responsible for continuation of the infection in the main cavity as well as for recurrence. Sometimes these pockets break spontaneously into the main cavity, while in other instances a search must be made for them. On the other hand, separate empyematic cavities may exist which apparently at no time communicate with the main cavity. Free use of the x-ray and the aspirating needle will aid greatly in locating the pockets as physical signs are notoriously uncertain.

Residual infection in the pleura or minute abscesses between the healed pleuras may produce a recurrence months or years after the empyema has apparently become completely healed.

The most common cause of chronic empyema is the existence of a rigid unyielding cavity. In such instances the pleura may be 1/2

inch (1.27 cm.) in thickness. At times the cavity may also be lined with flakes of calcar-



*Fig. 1. Chronic empyematic cavity extending from apex to base with multiple areas of calcification in the walls.*

eous material, and although Nature has done her best to close the cavity by drawing in the chest wall and elevating the diaphragm, the walls are so rigid that defeat is inevitable.

In ordinary empyema the fluid forms slowly and as it compresses the lung, adhesions form about the periphery to the chest wall. When the fluid is evacuated the adhesions develop further, gradually approximating the visceral and parietal pleuras, toward the point of drainage. Pneumothorax, by contrast, represents a collapse of the lung without limiting adhesions rather than a compression. This condition occurs in early drainage of streptococcic empyema before adhesions have formed. It results in a totally collapsed lung, which of itself has little tendency to expand; the powerful healing force of visceral parietal adhesions are absent. In the early stage of the disease some type of closed drainage may effectually expand the lung but when the condition has become chronic radical operation aimed at obliteration of the cavity is indicated since the lung will not expand.



Tuberculosis will be found to be the cause of a certain number of chronic empyemas. While healing can be obtained by the usual measures employed, special attention must be given to the general physical status of the patient. The most serious state possible in a tuberculous patient is that of open pneumothorax with a totally collapsed lung. Under such conditions a total thoracoplasty of the involved side is the only possible method of cure.

The presence of foreign bodies, such as lost drainage tubes, bismuth paste or fragments of ribs is readily recognized as prolonging drainage.

The presence of chronic empyema is usually self evident. The type of infection should be ascertained by examination of the discharges and by biopsy of the abscess wall if desired. Care should be taken to eliminate tuberculosis and more particularly actinomycosis as etiologic factors. The latter may mask as a simple infection which refuses to heal until a general systemic invasion awakens the attendant to the more serious nature of the process. Finally, an undrained empyema, discharging pus by way of the bronchial system, can escape detection

for long periods under the diagnosis of lung abscess.

The physical wreckage presented by the average patient with chronic empyema is quite remarkable. Anemia is often extreme, there is loss of weight, weakness, pain and dyspnea; and the patient is truly miserable. If bronchial fistulae are present he may, in addition, be raising large quantities of foul pus. Clubbing of fingers and arthritis are observed in some instances.

The first objective is to provide adequate drainage and to eradicate sepsis. The elimination of septic absorption by drainage and antiseptic irrigation, and the administration of rest, food, tonics and transfusions will speedily change a frail, dyspneic, toxic person to one of comparative health and well being. Only when this state has been reached and a relatively clean cavity attained should anything more of a surgical nature be contemplated. Surprisingly enough, under this regime the lesion will occasionally heal and require nothing further.

The surgical approach should be preceded by a survey of the field as a local problem. Roentgen studies, made after the cavity has been injected with opaque media, aid in determining the extent of the cavity and its location. The general plan of procedure should be determined beforehand and carried out with dispatch. Each case is an individual problem, to be solved as such, and well merits careful consideration before a definite decision is made.

In general, two plans are available. One is decortication of the lung, in which the visceral pleura is severed from the lung surface. This permits the encased lung to expand and fill the empyematic cavity. Decortication is usually performed only in the subacute types of empyema. Sharp hemorrhage and sudden shock may occur and bronchial fistulae are frequent sequelae. Most surgeons tend to avoid decortication feeling that it is too dangerous although, theoretically, it is the ideal procedure.

The second type of treatment is that of collapse, in which the chest wall is brought down to meet the lung. The application of plastic closure and collapse measures can be best illustrated by two cases which presented distinctly different problems and different methods of surgical treatment.



*Fig. 2. Cavity unroofed and healed by plastic. Tip of scapula has been removed.*



Fig. 3. After injection of opaque media the cavity is outlined, demonstrating a large pneumothorax and collapse of the lung.

#### REPORT OF CASES

Case 1. Mr. S. B., 46 years of age, sustained a crushing injury of the left side of the chest during September, 1926. A few days after removal to the hospital fever developed which was treated as malaria for a five weeks' period. A roentgenogram of the chest at that time disclosed density over the left side which proved to be due to the presence of pus; a rib resection and tube drainage were carried out. After drainage for five or six months the tube accidentally slipped out and could not be replaced. During the following month the drainage tract closed and the patient considered himself cured, although he never quite returned to normal health.

In 1936 a cough developed, as well as fever, weakness and sweats. The cough finally became productive, large amounts of pus being expectorated. This condition continued until the patient's admission to the hospital in May, 1939. The cough was then so bad that he obtained very little sleep or rest at any time. He was thin, anemic and toxic, and had a constant hacking productive cough.

A roentgenogram of the chest (Fig. 1) was interesting as it showed the empyematic cavity extending from apex to diaphragm, with multiple areas of calcification in the walls.

Our first problem was to improve the patient's nutrition, increase his resistance and combat the toxemia. Adequate drainage was most important and this was provided by the resection of three ribs and removal of the intercostal muscles and thickened pleura. The productive cough ceased almost at once. General improvement was aided by blood transfusions, iron administration, irrigation of the cavity with Dakin's solution, and by good nursing care.

One month later he was ready for a more serious attempt at closing the cavity. At that time the previous incision was extended upward along the vertebral border of the scapula. The scapula was drawn forward and segments of five ribs together with intervening muscles

and parietal pleura were resected, completely unroofing the upper two-thirds of the cavity. Bronchial fistulae found at the previous operation were seen to be closed. All calcium plaques remaining were removed from the walls of the cavity thus exposed and finally a long pedicled skin graft was taken from the edges of the wound and sutured to the apex and bottom of the cavity. Fortunately this healed well and the upper two-thirds of the cavity was soon well covered with epithelium.

Later, at a third operation, the lower portion of the cavity was unroofed by resection of portions of several ribs which were fused into one compact mass. The pleura was again  $\frac{1}{2}$  inch (1.27 cm.) in thickness and covered with calcium plaques. It was decided to attempt closure of the lower cavity with muscle implants rather than with skin, in the hope of decreasing the size of the residual defect. It was found that muscle and skin flaps could be freed from about the wound and sutured into the cavity with little difficulty. In this way the extent of the defect was much reduced. Healing was not as rapid as with skin flaps alone but, all in all, it was reasonably satisfactory. Finally, as the cavity healed, motion of the scapula became quite limited and painful. To remedy this condition and to permit free shoulder motion the lower one-



Fig. 4. Lateral view showing the lower limits of the cavity.

half of the scapula was resected.

Today the patient has free, painless use of the arm, a healed cavity, (Fig. 2) no cough, and a fair degree of health.

Case 2. Mrs. P., aged 33, contracted influenza with pleurisy and pneumonia in December, 1928. In February, 1929, empyema was diagnosed and a rib was resected to permit drainage. In three weeks drainage had ceased, the tube was removed and the wound permitted to heal.

In 1933 fever developed as well as a cough which at first was dry but later became productive of foul sputum. The condition was diagnosed as tuberculosis and the patient was so treated for several months. Later aspiration of the chest disclosed pus, and drainage by tube was instituted. In two weeks the drainage ceased and the



tube was removed.

In 1935 the old scar became tender and tense. A small incision in the scar drained pus freely. The patient was admitted to the hospital one month later, when the scar was excised and improved drainage provided. Her next admission was in January, 1939, at which time a rib was resected and tube drainage again established.

She was again admitted to the hospital in May, 1939, when I saw her for the first time. Weakness and anemia were so pronounced that she could not stand. Hemoglobin was 40 per cent and the red cell count 1,890,000. Without using anesthesia the old sinus was dilated and a catheter introduced into the pleural cavity. Irrigations with a dilute solution of sodium hypochlorite at two hour intervals, and four blood transfusions restored her strength and vitality very rapidly. Nothing more was attempted at this time and the patient was sent home to continue irrigations and other measures. Roentgenograms (Figs. 3 and 4) disclosed an almost complete collapse of the lung and a large pneumothorax cavity at the apex. It was felt that thoracoplasty would be the only means of closing this extensive cavity.

The patient returned in October, much improved in health, and the first stage of a thoracoplasty was carried out. The first 5 ribs were resected, taking generous portions of each rib. An attempt was made to free the pleura from the chest wall and depress it toward the hilus as in an extrapleural pneumolysis, but the pleura seemed so thick and adherent that this could not be done. Convalescence was uneventful except for the development of traumatic paralysis of the right arm due to the patient's lying on that limb during the operation.

She returned in February, 1940, the arm fully recovered and in excellent condition. Irrigation of the empyematic cavity through the catheter in the old sinus had, of course, continued during this entire time.

Roentgenograms of the chest were interesting in that they showed the collapse actually present was much larger than that seen soon after operation. Nature seems

to aid our efforts if we but give her a chance.

The next step of the collapse program consisted in reopening the healed incision and entering the subscapular space. The regenerated ribs were resected and the stumps of those previously removed were further shortened. At one point the empyematic cavity was accidentally penetrated and the roof of the cavity was therefore removed exposing the upper two-thirds of the cavity. At this stage the patient ceased to do well and the operation was terminated by packing the cavity with gauze. The gauze was removed in a few days and a catheter inserted for irrigation.

A final operation four weeks later disclosed that the upper cavity, which was unroofed at the last operation had become largely obliterated and, strangely enough, the lower cavity, which was the object of this last procedure, was likewise obliterated. Not only had the cavities largely disappeared but the remaining walls were particularly clean so that nothing further surgically was necessary. (Fig. 5) A search was made for any hidden cavity or persistent sinus but none could be found. Again we can observe that Nature aids if we but give her a chance.

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## DISCUSSION

Dr. Leland Carlton, Tampa:

Dr. Snyder has covered the subject so thoroughly that there is little room for discussion.

We are fortunate here in Florida in that we have but few cases of chronic empyema. Empyema is a condition that not many surgeons enjoy meeting. I feel that correct handling of acute empyema will be of invaluable aid in combating chronic empyema. However, after a well planned operation during the acute stage as well as scientific treatment, fistulae and sinuses may persist.

Patients with chronic empyema are not good surgical risks; a long period of absorption from the encapsulated pus, anemia which almost always accompanies this condition, and tachycardia, are things which must be combated. The patient must be built up by transfusions and frequently minor drainage procedures with Dakin irrigations are necessary in order to prepare him for the more radical operative procedure.

Each individual case presents its own problems, and here one finds roentgen studies, aspirations and bronchoscopic examinations the most valuable aid in the correct handling of the case. A physical examination by percussion and auscultation is not to be relied upon because of the thickened pleura and the probable pus pocket formation.

Chronic empyema confronts the surgeon with the task of either attempting to bring the lung out to the chest wall or of collapsing the chest wall to make a closed space around the collapsed lung. In acute empyema the lung is compressed, whereas in chronic empyema it is collapsed. In either case, however, if the lung is allowed to remain compressed or collapsed long enough, adhesions form which prevent it from expanding to its normal capacity.

Nature has proved a great aid to mankind, but in empyema with its attempt to wall off cavities by adhesions, it has caused multiple abscesses to form which have proved themselves very difficult of treatment at times.

There is no one operative procedure which is applicable to all cases of empyema. One has to study each individual case and apply the treatment most suitable for that particular case. Some require only drainage with sterilization of the cavity; others rib resection; others more radical thoracoplasty with an attempt to close the cavity; and still others require more radical plastic surgery.

Thoracic surgery has made great advances in the past few years, and the method of approach is quite different from what it once was. Chronic empyema gives the surgeon time to prepare his patient, and to study the condition more thoroughly. With the added knowledge he now has, the chances of cure are much greater.



Fig. 5. Collapse of the chest wall and closure of the cavity effected by thoracoplasty.



*Dr. Kenneth A. Morris, Jacksonville :*

For many years after the World War we used to observe quite a number of patients with chronic empyema, and some of those we see today are the ones who were treated for empyema while in the Service.

In the early years of the World War many of these patients were operated on early, before the pus was thick and adhesions had formed. Immobilization of the lung and the mediastinum was not established and collapse of the lung occurred due to open pneumothorax. Some of these patients went around for years afterward with large cavities and draining sinuses.

I wish to express my admiration for the way Dr. Snyder is handling these chronic cases. Some of them are like those we saw in the World War victims. I remember one case where streptococcus was found in the cavity fifteen years after the acute streptococcic empyema. One other type we see is due to inadequate drainage. This sounds like a simple thing but it is important. I have seen two children recently who had chronic empyema with cavities simply because drainage was done about three rib levels above the floor of the cavity.

Dr. Snyder mentions the fact that drainage should not be done at the angle where the diaphragm meets the ribs. This is a point I have not always observed, but it seems to be important.

At the Duval County Hospital we have adopted a method of treating chronic empyema in which we do not remove the tube until the cavity measures 1 or 2 cc. It is difficult to get the interns to keep from removing the tube too early, which frequently causes the wound to heal before the infection has cleared up.

I have enjoyed this paper very much.

*Question from the floor:*

I would like to ask Dr. Snyder if in his opinion chronic empyema is the result of an inadequate drainage or is there something else which can be done to prevent cavity formation, pocket formation and fistulae in acute empyema.

*Dr. Snyder, (concluding) :*

The last question is a hard one to answer. I have carefully avoided discussing the treatment of acute empyema because it is a chapter in itself.

The main objective in acute empyema is to establish proper and adequate drainage so that the cavity may have an opportunity to clear. There are, of course, many pitfalls. One seldom considered in the closed type of drainage is the too sudden withdrawal of pus in large quantities. This may cause adherence of the lung to the chest wall, leaving residual pockets of purulent material behind the adhesive barrier. Expansion of the lung should be gradual, accompanied by mild antiseptic irrigation so that when lung and parietal pleura come in contact adhesion can take place in a relatively clean field, leaving no residual pockets or infected pleura behind, from which recurrence may take place. There are, of course, other dangers to avoid and various measures to expedite healing all calling for rather personal attention on the part of the surgeon.

I would like to emphasize one point relative to the treatment of chronic empyema. Each case is a separate individual problem and must be considered as such. After a decision is reached as to what the objective should be and what plan should be followed, the execution of such a plan should be carried out with promptness and precision.

TREATMENT OF NEISSERIAN  
ARTHRITIS WITH SPECIAL  
REFERENCE TO INTRA-  
DERMAL THERAPY

T. HARTLEY DAVIS, M. D.

Bradenton

There is probably no disease condition for which more numerous and varied forms of treatment have been devised than the metastatic joint involvement of gonococcal urethritis and vaginitis. This fact gives evidence that satisfactory results have not been obtained from most of these methods.

When sulfanilamide was first introduced it was thought to be a panacea for all coccus infections, and rightly so in most cases. It was used in the treatment of gonorrheal arthritis but with disappointing results. Before the advent of the sulfanilamide group, the various methods employed in the treatment of this dreaded complication brought slow recovery, and failed to relieve pain and long periods of disability. Also there was frequent permanent disability due to actual ankylosis or to impaired function of the affected joints. Of these various methods used in the treatment of gonorrheal arthritis the following have been emphasized by different observers<sup>1</sup>: stock vaccines, filtrates, autogenous vaccines, intravenous injection of autogenous synovial fluids, foreign protein therapy, convalescent serum, injection of the seminal vesicles and prostate with iodine and other chemicals, deep roentgenotherapy, and operative treatment. All have been used with occasional striking success, but in most cases the results have been disappointing.

Hedrick<sup>1</sup> recommended the combination of hyperpyrexia by diathermy, insufflation of the affected joint with air, and the intravenous injection of ammonium iodoxy benzoate (Amidoxyl); in severe cases the limb was immobilized by plaster jacket. When he used this method the average duration of the arthritis was six weeks after institution of treatment. In his series of 22 cases, 11 patients were treated by his favored method, with the following results: 40 per cent were cured, 40 per cent showed improved, 20 per cent became ankylosed.

<sup>1</sup>Read before the Alachua County Medical Society, Gainesville, January 10, 1940.

Of the remaining 11 patients, for whom neither amidoxyl, insufflation nor hyperpyrexia were used, 30 per cent showed no improvement, 10 per cent suffered recurrences, 20 per cent became ankylosed, and 40 per cent showed only slight improvement.

Rombold<sup>2</sup> recommended prompt surgical drainage of the affected joint in instances in which there is not a great amount of severe pain and in which but a single joint is involved; for patients with much pain and multiple joint involvement, he advocated fever therapy. He recommended sulfanilamide by mouth but stated that one may expect a protracted sickness with a convalescence frequently prolonged over a period of some weeks.

Thomas<sup>3</sup> stated that fever therapy is the best form of treatment for a patient having a gonococcal infection with a metastatic involvement.

Goldey<sup>4</sup> pointed out the value of autoserum therapy, that is, the giving of a patient's own blood serum intravenously, the serum having been previously extracted and treated by heat.

Hench<sup>5</sup> wrote that fever therapy is the method of choice and in any case of acute gonococcal arthritis it should be promptly instituted. He obtained cures in 88 per cent of the acute cases and in 43 per cent of the chronic cases. Combining all patients treated, chronic or acute, 69 per cent were cured.

Bierman and Levenson<sup>6</sup> recommended combined systemic and local heating as the most effective means of combating this complication of gonorrhea.

Meuther and Andrews<sup>7</sup> reported excellent results in the treatment of gonococcal arthritis, by use of neoprontosil tablets by mouth in combination with typhoid vaccine intravenously. The dosage of vaccine was graduated according to the febrile response. They began with a dose of ten million organisms and increased the dosage daily until reactions became severe. They then increased the interval between injections. In control cases neoprontosil alone was used followed by vaccine alone. Finally, when no marked response was noted, the two were used together. The vaccine used in this series, as stated above, was for the purpose of producing fever, so this method combined hyperpyrexia and neoprontosil. These authors stated that this combined method reduced the

average hospital stay of 8 patients about 50 per cent and also relieved pain within twenty-four hours. They divided cases of gonococcal arthritis into four types (1) mild and transitory, (2) acute monarticular, (3) migratory, and (4) chronic deforming.

During the past two years I have treated 16 patients with gonorrheal arthritis. Of these, according to the classification just mentioned, 1 was type 4 (chronic); the others were all type 2 (acute monarticular). In the one chronic case the treatment used was sulfanilamide tablets given by mouth, 40 grains a day for ten days. The knee joint had to be aspirated on three successive days. The patient was also given gonococcus filtrate in the usual dosage. He remained in bed for six weeks, and was on crutches for another month, then walked with a cane for three months.

All of the remaining 15 patients in this series had the gonococcus organisms demonstrated in urethral or vaginal smears. Patient No. 1 of this series of 15 had acute gonorrheal vaginitis, salpingitis and urethritis with a metastatic arthritis of the ankle joint. The patient was given 40 grains of sulfanilamide daily and after two weeks of this treatment such marked cyanosis and distressing dyspnea developed that the drug had to be discontinued before satisfactory subsidence of the infection had taken place. The cyanosis did not disappear until after the drug had been discontinued for two weeks and then only after three blood transfusions of 500 cc. each had been given. Following two months in bed, however, the patient did finally recover from her primary and from her metastatic troubles.

Patient No. 2 had knocked about from pillar to post. He had been treated by various and sundry methods, including vaccines, filtrate, fever therapy, typhoid vaccine intravenously, and a number of compounded medicines by mouth, but he still had urethritis and a painful wrist, which was swollen to about twice normal size, perceptibly reddened and hot to the touch, but without fluctuation evident by palpation. Prior to the time I saw this patient, I had used gonococcus filtrate for gonorrhea, with partial success in a few cases but with little success in most. I had read that there was some not-well-understood virtue in giving the filtrate between the layers of the



skin and had, therefore, decided to try neoprontosil solution in this manner, that is, intradermally, for gonorrheal arthritis. In the case just mentioned treatment was begun by giving  $\frac{1}{2}$  cc. of neoprontosil daily and increasing the dosage each day until response became noticeable, which was in about one week after the initial dose. At this time the dose was 2 cc. daily and the patient had begun to notice subsidence of pain and of swelling. At the end of the second week, during which period 2 cc. of neoprontosil was given daily without increasing the dose, the wrist was without pain and had returned almost to its normal size, but it was somewhat stiff and still tender. The patient completely recovered after three weeks of treatment.

Patient No. 3 was an automobile mechanic who had an ankle involvement following three months of interrupted treatment for gonorrheal urethritis. He, like patient No. 2, lost his pain and swelling after a week of daily intradermal injections of neoprontosil solution.

Patient No. 4, a negro man, after one week of urethral discharge became afflicted with excruciatingly painful arthritis of the shoulder joint. Within twenty-four hours after the first injection of neoprontosil the pain was entirely relieved. Two other patients of this series experienced relief of pain within forty-eight hours after the initial injection.

The remaining eleven patients of this series each had one joint involved. They were all seen at the onset of the joint involvement and daily injections of neoprontosil solution were given. In each of these cases pain began to subside during the second day of treatment and the average loss of time from work was ten days.

In these cases injections were made near the site of the infected joint. Whether this had any bearing on the effectiveness of the procedure is not known. It might appear that 2 cc. is an enormous quantity of foreign material to inject intradermally but actually this amount of neoprontosil solution can easily be given in four to five wheals with little discomfort and with no damage to the skin. The red discoloration of the skin at the site of the wheal disappears within forty-eight hours.

I believe that the prompt relief of pain is due primarily to some mechanism in the in-

tegument, set into action by the intradermal use of this drug, and not to the dosage, for the following reasons: (1) The first 3 patients treated by this method were given  $2\frac{1}{2}$  per cent solution and the remaining patients were all given 5 per cent solution, but the results were the same when the optimum 2 cc. of either solution was given. (2) The average dose of sulfanilamide by mouth is 40 grains daily, whereas, by this injection method the patient gets only  $1\frac{1}{2}$  grains a day from the 5 per cent solution and only  $\frac{3}{4}$  grain from the  $2\frac{1}{2}$  per cent solution; nevertheless, he experiences far more rapid relief. The promptness of relief from pain and of subsidence of swelling in all cases proved to be directly proportional to the promptness with which treatment was started after the patient first noticed joint involvement.

In conclusion let us compare the results obtained in this series to those reported in the literature for other methods used in the treatment of gonorrheal arthritis. The highest rate of recovery claimed for acute cases was 88 per cent obtained by fever therapy. In the hands of any but experienced physicians this may prove a dangerous undertaking; furthermore, the aged and the debilitated can not be given fever therapy without great hazard.

In my series (in which treatment consisted of intradermal injections of neoprontosil alone) there was 100 per cent recovery, no ankylosis, no evident joint destruction, and no recurrence; the average loss of time from work was ten days.

I realize that the clinical material recorded in this series is inadequate for a finished treatise on the subject but I feel that with this much smoke there must be a little bit of fire. I do not contend nor believe that this method will cure every patient with gonorrheal arthritis in ten days, but the results obtained in this series are so convincing that I feel this method merits a trial in every case, especially in view of its simplicity of procedure and its freedom from danger. If the patient is seen before there is damage to cartilage or impairment of joint function, when rapid and marked relief of pain and speedy restoration of function in the affected joint are possible, this method is certainly worth trying.

Definite knowledge of the mechanism by which intracutaneous therapy operates re-



mains nebulous and, likewise, it is not yet entirely understood just how the sulfanilamide group of chemicals effect their wonderful influence upon organisms.

#### SUMMARY

(1) Many and varied methods have been used in the treatment of gonorrheal arthritis but most of them have been disappointing in their results.

(2) Fever therapy has given best results prior to the use of the method outlined in this paper.

(3) The author reports 100 per cent recovery, without recurrence or residual joint damage in a series of 15 patients treated by daily intradermal injections of 2 cc. of 5 per cent solution of neoprontosil.

(4) It is believed by the author that this method will supersede other methods in the treatment of gonorrheal arthritis owing to its safety, simplicity and effectiveness.

(5) Further investigation is being conducted into laboratory phases of this method.

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*This paper is a preliminary report on the subject. Continued investigation is being conducted into the laboratory phases untouched in this paper, and data on controls are being recorded for a more complete, future report*

## RHEUMATIC CHOREA IN A NEGRO

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As a result of a letter written by Dr. S. Weir Mitchell to prominent physicians throughout the country, the infrequency of rheumatic chorea in the negro was fairly well established. Cases were reported by Polk<sup>1</sup> in 1874, Skinner<sup>2</sup> (1875), Sinkler<sup>3</sup> (1882), Mulheron<sup>4</sup> (1887) and Roy<sup>5</sup> (1892). Since then other cases have been reported, and the pediatric clinics throughout the country are familiar with rheumatic chorea in the negro. The work of Lueth and Sutton<sup>6</sup> in Chicago in 1933 showed that chorea was approximately as prevalent in negroes as in white people. Thayer's<sup>7</sup> analysis of 808 cases of chorea in Baltimore, indicated that the proportion was four white persons afflicted to one colored. The figures of Gleich<sup>8</sup> (1927), taken from the records of the Harlem Hospital, showed 2402 white admissions of which 27 were chorea (1.12 per cent), and 2646 colored admissions, including 19 cases of chorea (0.72 per cent).

#### REPORT OF CASE

A 16 year old negro boy was admitted to the James M. Jackson Memorial Hospital in Miami, Florida, on March 28, 1940, complaining of twitching movements of the right upper extremity of one week's duration. The patient had had rheumatic arthritis a year previously, and during the present attack he had had slight rheumatic joint pain. This boy was born in Miami and never had been out of the state of Florida.

The physical examination showed the patient to be fairly well-developed and well-nourished but with involuntary jerking movements of the right side of the body. The heart was slightly enlarged to the left. There was a systolic murmur, maximum in the mitral area but transmitted over the entire precordium and back to the angle of the scapula. The remainder of the examination was essentially negative.

Urine, blood count and Kahn examinations revealed no abnormalities. The sedimentation rate varied between 12.5 mm. and 16 mm. in sixty minutes. The electrocardiogram showed a PR interval of 0.14 seconds, a tendency to left axis deviation, but was otherwise normal.

The patient was afebrile until April 19. He was treated with salicylates and phenobarbital. He then showed an elevation of temperature, which reached a maximum of 103 F. and a papular skin eruption developed. The temperature became normal and the eruption disappeared when the medication was changed to chloral hydrate alone. Thereafter, the patient was again afebrile until his discharge on May 15, 1940. The choreiform movements, which gradually diminished, had disappeared entirely by that time. The final diagnosis was rheumatic chorea and rheumatic heart disease, with enlargement of the heart, organic mitral insufficiency, regular sinus rhythm and class II functional capacity.

This case is of interest because a thorough search of the literature showed no case of rheumatic chorea as far south as the twenty-sixth degree of latitude in the United States. Schwab

and Schulze<sup>9</sup>, made a study of *Heart Disease in the American Negro of the South* in 1932, but did not mention rheumatic chorea. In reviewing past records, it became apparent that the farther north the study was made, the greater was the incidence of rheumatic chorea. Tropical studies are conspicuous for the rarity of the disease.

C. D. Williams<sup>10</sup>, considering health in the Gold Coast, wrote: "Some conditions are remarkable for their rarity. Among these are surgical conditions . . . , acute rheumatism, carcinoma of the breast . . . ." Stott<sup>11</sup>, of Lucknow, India, reported a yearly incidence of rheumatic fever of 6 in each 1,000 admissions, of which 6 per cent were chorea (5 cases in seven years). Lucknow is approximately at the same level of latitude as is Miami. In the six year period from 1932 to 1938, there were 261 admissions for juvenile rheumatism to the Medical College of Calcutta, India. Some were readmissions. Of the total, there were 4 cases of chorea. "Chorea in Indian children in Bengal is also of extreme rarity . . . . Among Anglo-Indian children living in congested areas it is less rare, though by no means as common as other rheumatic manifestations."<sup>12</sup> An occasional case of rheumatic fever was recorded in various other tropical countries; seldom a case of rheumatic chorea. In 1933, a case of rheumatic fever was reported in a Lumbwa (African) native<sup>13</sup>. For the previous eleven years, no case of rheumatic fever or any of its manifestations or sequellae had been observed.

It is evident that rheumatic chorea is observed in the tropical and subtropical climates, but here it is rare as compared to its incidence in temperate climates. Also, even in temperate climates, there is a preponderance of evidence showing that the negro has a certain degree of

racial immunity. Further studies on the effect of a subtropical climate on rheumatic heart disease are at present being made.

Table I lists the latitudes of the various cities from which reports have been made.

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#### BOTULISM: ITS TREATMENT

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As pointed out by Schneider and Fisk<sup>1</sup>, the diagnosis of botulism is often difficult and must be made largely on the history and the physical findings. In their report they emphasized that this usually fatal disease may be diagnosed by the demonstration of toxin in the blood or body tissues.

Botulism is produced in human beings by the ingestion of food containing the toxin created by the *Bacillus botulinus*. This organism is resistant to heat, and because of this, canned foods are prone to contain the organism in viable condition as well as the toxin produced after canning.<sup>2</sup> Since home canning usually does not provide steam pressure for the length of time necessary to render these bacteria harmless, such foods are generally the most dangerous. Foods that contain this in-

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TABLE I

LOCALITY	AUTHOR	LATITUDE
South Milford, Dela.	Polk	38°0'N
Glasgow, Dela.	Skinner	38°0'N
Phila., Pa.	Sinkler	39°57'N
Detroit, Mich.	Mulheron	42°20'N
Wash., D. C.	Roy	38°53'N
Chicago, Ill.	Lueth and Sutton	41°55'N
Balti., Md.	Thayer	39°17'N
N. Y., N.Y.	Gleich	40°42'N
Galveston, Texas	Schwab and Schulze	29°20'N
Gold Coast, Africa	Williams	5°0'N
Lucknow, India	Stott	26°45'N
Calcutta, India	Hodge	22°34'N
Bengal, India	Hodge	24°0'N
Miami, Fla.	Saslaw	25°48'N



fection solely usually show so little change in color, odor or taste that they are unsuspected. It appears that practically all foodstuffs may harbor the organism even in a relatively fresh state. Formerly meat products were thought to be the chief source of infection. The manifestations of the disease appear to be due to a definite poisoning of the central nervous system by the toxin already in the food, rather than to bacterial activity in the body. The toxin is readily destroyed by boiling and it is probably true that a contaminated food would be rendered harmless by this procedure even though spores of the organism were still present. If sufficient time is allowed after boiling, more toxin would certainly be created.

As seen clinically, botulism presents symptoms varying in the individual case with the amount of the toxin ingested. It is not thought that any further toxin is produced in the body. The time elapsing between ingestion and appearance of characteristic signs, and the number and severity of these signs, seem to be dependent upon the quantity of toxin consumed. Undoubtedly the so-called classical cases, in which violent symptoms are seen and death occurs within one or two days, are simply due to an overwhelming dose of the poison. These are so rapidly fatal that rarely is a diagnosis made before death occurs.

The type of case to which I wish to direct attention is the one in which the patient may be considered as having received a sublethal dose of the toxin. The diagnostic signs are so vague that diagnosis is baffling and likely to be doubted, but death of the patient will follow in the course of several weeks if effective and early treatment is not given. A diagnosis must be made upon fewer positive findings in the physical and laboratory examinations than in any other condition with which I am acquainted. It may even be said that the average clinician would not be satisfied to make a diagnosis with so few positive signs, yet the seriousness of this anomaly is such that it should be called to the attention of every physician. He must carry in mind these few facts so that valuable time may not be lost in trying to diagnose some other condition. When these signs are present and cannot be accounted for by other means, specific treatment in the form of botulinus antitoxin must be instituted as early as possible if the patient is to be saved.

The toxin appears to have a specific effect on the central nervous system. The medulla is particularly affected and death results from respiratory exhaustion after a prolonged period. During the interim the patient does not appear to be very ill, and it is difficult to believe that one is dealing with such a serious ailment. The early visual signs occasion no particular discomfort, and until the last few days of the illness there is indeed little to make one suspect that the prognosis is most grave. Eventually the signs of medullary embarrassment and impending failure manifest themselves in the untreated case and death ensues rapidly. The following two reports will illustrate the disease as seen in this type of case:

Case 1. Mrs. R. S., aged 56, came to the office on March 1, 1940, with the single complaint of vertigo, which had been present for three or four days. During this period, a good many people were being seen who had suffered minor digestive disturbances and who complained of vertigo. In all of these instances a simple laxative and dietary restriction cleared up the condition rapidly. Since this patient presented no symptoms differing from the others, nothing unusual was suspected for about ten days. When first seen, she presented a normal temperature, normal reflexes, a blood pressure of 130 systolic, 90 diastolic, and the pulse and respiratory rates were normal. No discomfort of any kind was complained of. The blood showed 4,550,000 erythrocytes, hemoglobin 85 per cent, and the urine was negative. Nothing abnormal was found on physical examination.

Ten days later she was seen at home. The vertigo had not cleared up and she now had diplopia and was nauseated to the point of vomiting at times, but no pain or other discomfort was present. A paralysis of the external rectus muscle of the left eye with a slight lagging of that lid was noted, but nothing otherwise different was found in the physical examination. At this time a more careful inquiry into the history of the attack was made. This revealed that several days prior to the first consultation she and her husband had eaten a meal in a restaurant consisting chiefly of sauerkraut and sausage. Both had had a rather violent gastrointestinal upset that night, hers the more severe. The husband was well again the next day, but he was quite positive that his wife had not been normal from that time.

On account of the few symptoms present, the diagnosis was doubtful and she was sent to the hospital for further observation. The skull was roentgenographed and was reported normal, special attention having been given to a defect in the area of the sella turcica. The blood examination showed nothing abnormal, and neither did the spinal fluid. The Kahn test in both was negative. The temperature and all other physical signs were normal. An ophthalmologist saw her in consultation and found the following: "Total paralysis of external rectus of left eye. Diplopia and poor accommodation present. Fundi and media normal. Tympanic membranes normal."

This patient was cheerful, sat up part of each day, generally ate well, and had satisfactory elimination. On two or three occasions she vomited frequently enough on successive days to necessitate the intravenous use of glucose solution. Following this she showed an elevation of temperature not exceeding 1 degree. At no time did she have any pain. As long as the left eye was covered she had little vertigo, but she vomited at intervals without regard to anything else noted in her condition. Because of these signs and the lack of other physical findings, the disturbance was thought to originate in the central nervous system, but a definite diagnosis was



not made. Brain tumor, botulism and encephalitis were considered, with a definite preference for the second of these. An internist saw the patient three days before death but could not offer a diagnosis. On this date she became somewhat confused mentally and the temperature was elevated to 101 F. For about ten days it had been noticed that the pulse and respiratory rates had increased while the temperature remained normal. During this period the blood pressure also fell to 90 systolic. Digitalization was attempted without effect.

It was decided that since a definite diagnosis was not apparent continued feeding and maintenance of fluid balance should be carried out. Some loss of weight was noted. During the last two days a tube was introduced into the stomach and adequate food and fluid given. She was comatose at this time, but the blood, urine and spinal fluid findings remained as upon first examination until the day of death. The heart and respiratory rates increased, and the blood pressure steadily fell, which indicated failure of the medulla. The patient died suddenly on April 13 of respiratory failure. Autopsy was not done.

Case 2. Six days later, Mr. W. K. S., aged 65, was seen at 10 p. m., after an illness of one hour. He complained of intense nausea, vomiting and vertigo; he had had one loose stool but no pain. At seven o'clock that evening he had eaten the following: canned vegetable soup, fried mullet, French fried potatoes, creamed celery, fresh apple pie, and a glass of pasteurized milk. His wife had taken the same foods with the exception of the soup and dessert. She, as well as others who dined in the same place, was unaffected. Nothing suspicious had been eaten earlier in the day. Nausea, vomiting, vertigo, and absolute constipation continued through the night and the following day. Marked weakness was apparent when the patient attempted to get out of bed. The temperature was normal. The next day all of these symptoms were still present and he was sent to the hospital. He complained of difficulty in focusing the eyes, and muscular weakness and incoordination were so marked that he had to be literally carried from the house. Vertigo was pronounced, but pain was absent.

After the patient's admission to the hospital, a saline cathartic was given with good results. Food was immediately taken and relished. The blood pressure was 180 systolic, 100 diastolic, the temperature normal, and the heart, lungs and abdomen negative. The reflexes were normal. Laboratory examination revealed the following: sedimentation rate normal, blood Kahn negative, hemoglobin 96 per cent, erythrocyte count 5,230,000, leukocyte count 9400, small mononuclears 14, large mononuclears 3, neutrophils 83, eosinophils 0, basophils 0. The urine showed nothing abnormal. The spinal fluid was not examined due to repeated negative findings in the first case and to the possible harm that might result if cerebral edema were present.

The ophthalmologist reported the following: "Partial paralysis of the external rectus of the right eye with some hyperphoria. Fundi and media normal. Nystagmus present when eyes pass midline toward right side. Pupillary reactions normal and slight lagging of upper lid present. Diplopia and blurring of vision so that patient cannot read usual print with his own glasses. Tympanic membranes normal."

I had read a number of texts and articles<sup>3, 4, 5</sup> on botulism, and a diagnosis of botulism was made. This case differed from the first only in that the opposite eye was involved, less tendency to nausea was seen after the first two days, and general muscular weakness and incoordination were more marked. The temperature was never elevated except after antitoxin was administered, and no pain occurred. The food intake was excellent, eliminations normal, and the patient rested quietly in bed. During the next ten days the blood pressure dropped to 138/85. The blood and urine findings remained constant during the illness. At the end of the first week, both respiratory and pulse rates were increased, the former reaching a high of 35 and the latter ranging constantly from 90 to 100. These symptoms seemed due to irritation of the respective centers.

Having just observed a similar case in which the pa-

tient lived for about six weeks and then died, it was with great misgiving that the second was handled. Botulinus antitoxin was found to be mentioned in the literature, but without details as to dosage or administration. No biologic catalog listed it, but a telegram to the National Institute of Health in Washington was referred to a laboratory which promptly shipped 4 vials of the antitoxin. Briefly, 8 vials each of types A and B botulinus antitoxin were received from this source with instructions for its use. Since the type was unknown and no suspected food was available for testing, the two serums were used in equal amounts. A total of 300 cc. was administered intravenously in doses of from 40 to 50 cc. at eight hour intervals. This was followed by 100 cc. intramuscularly, in doses of 25 cc. at six hour intervals. At the time of two intravenous injections, pain in the back was complained of for a few minutes. Slight chilliness followed but the temperature did not exceed 100 F. and subsided rapidly. Generalized rather mild urticaria developed and persisted for about five days. The eye symptoms had practically disappeared by the time the last dose of serum was given, but the muscular weakness persisted. The patient was allowed out of bed after two weeks and walked fairly well with assistance in three and one-half weeks after onset. The vertigo disappeared with the eye symptoms. The heart and pulse rates decreased to normal during the fourth week of illness. He left the hospital on May 25, recovered in all respects except stability in walking.

#### SUMMARY

Botulism is a disease which should be suspected in all acute gastrointestinal disorders apparently due to food. If the disease is not rapidly fatal, a diagnosis must be made and immediate treatment instituted on the basis of subjective and objective findings which are vague in the extreme. Perusal of the literature will reveal that positive laboratory findings in the examination of suspected food are the exception rather than the rule. In the second of these cases, all food specimens were sterile and produced no symptoms in laboratory animals.

Diagnosis is to be made upon a history of gastrointestinal upset of varying degree, together with most or all of the following signs:

1. Visual disturbances appear from twenty-four hours to several days after the acute upset. There is diplopia, lateral rectus paralysis, nystagmus, disturbance of accommodation, ptosis, and, at times, weakness of other eye muscles. The eye grounds are normal in the absence of previous disease.
2. Vertigo is marked and may or may not be accompanied by vomiting.
3. Decreased salivation may be seen. Difficulty in swallowing is present at times.
4. Generalized muscular weakness and incoordination may be mild or extreme.
5. Absence of fever or pain is usual.
6. There is increased pulse and respiratory rates with no explainable cause other than irritation of the medullary centers.
7. Examination will show essentially nor-

mal laboratory findings in the blood, urine and spinal fluid.

Specific treatment in the form of botulinus antitoxin must be given early and in adequate dosage. At least 300 cc. of the mixed types should be given intravenously in 50 cc. doses at eight hour intervals, and 25 cc. given intramuscularly every six hours until the most marked symptoms have disappeared.

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### HYPERACTIVE CAROTID SINUS SYNDROME

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For several years I have been observing various types of syncope, particularly in old people, and more particularly in old people with either heart disease or hypertension or both. One of the causes of such syncope is a hyperactive carotid sinus reflex and it is this that I wish to discuss.

It has been known for a long time that the human heart can be temporarily slowed by making pressure on one or both of the carotid arteries, but the mechanism was not clearly understood. Recent extensive reviews, particularly by Soma Weiss and his colleagues in Boston and by Smith and Moersch, have set forth many interesting details in the history of such phenomena. It is stated that an ancient Chinese method of producing anesthesia was to make pressure on the neck. An early Assyrian practice was to tie a band around the neck and thereby exert pressure before performing circumcision. In 1799 Parry said that he was able to slow the heart beat by making strong pressure on one of the carotid arteries. Waller in 1862 reported a similar phenomenon but expressed the opinion that it was not due to such pressure. Then in 1866 Czermak, after con-

ducting experimental work, attributed the slowing of the heart to mechanical stimulation of the vagus nerve, and until recently this theory has persisted and the test has been called the "vagus pressure test." However, Hering in 1923 was able to demonstrate that even after the vagus nerve had been separated from the artery the heart rate could be slowed when the common carotid artery was compressed and it is this work which has resulted in the modern interpretation.

Apparently the cardiac slowing or arresting is caused by a mixed reaction involving both a temporary suppression of the sinus node, which for a time wipes out the normal cardiac pacemaker, and also a refraction period of variable length, during which the heart does not initiate impulses from new areas. The symptoms of faintness or the actual syncope seem to be due to cerebral anoxemia caused by slowing and stopping of the heart. There may also be some corollary help from actual diminution in blood flow because of mechanical interference with the carotid arterial function. Weiss has shown that the cerebral effects are caused not so much by the degree of anemia of the brain as by the rapidity with which the change occurs.

At present it is believed that unconsciousness and convulsions or a wide variety of milder manifestations of cerebral dysfunction may be accomplished through reflex arcs originating in a hyperactive carotid sinus. Careful investigative work indicates that both afferent and efferent portions of these reflexes are a part of the autonomic nervous system. It appears that the sensory portion is always the same but that the motor impulses arrive by several different routes. The origin of the reflex seems to be in the dilated portion of the common carotid artery, which is usually at or near the bifurcation and is called the carotid sinus. This sinus may be stimulated by stretching such as would occur with increased pressure. Moreover, the stimulation might result from relaxation of the wall. Such a powerful source of sensory reflexes is doubtless affected also by chemical or endocrine factors. Regardless of how the stimulation arises, the impulse passes across and is projected to the periphery through various sympathetic pathways. The variability of symptoms is, therefore, dependent in part on the kind of motor stimuli thus produced.



It is now known that there are three main types of neural routes for impulses which cause syncope. These are the vagus nerve, vasomotor depressor nerves and various pathways within the central nervous system.

In most normal human subjects while carotid sinus pressure does not cause any difficulty physiologic stimulation resulting from varying intracarotid blood pressure does produce a change, which is evidenced by minor alterations in the peripheral blood pressure. In those persons having a hyperactive carotid sinus mechanism, however, stimulation of this area causes profound and often dramatic symptoms. Abnormal impulses may originate in this region as the result of purely normal stimulation, or normal impulses arising here may result in hyperactive efferent impulses. Thus if vascular disease of the central nervous system is present even a normal impulse from the carotid sinus may cause untoward results simply because the central destination and point of projection is abnormal.

In several papers and with various co-workers, Weiss has elaborated his conception of three distinct types of hyperactive carotid sinus reflex. In the first of these which he calls the vagal type, the cerebral anemia is directly attributable to absolute, though transient, cardiac asystole. This stopping of the heart may be due to various forms of heart block but it inevitably results in acute ischemia of the brain. The cardiac symptoms are caused by an efferent impulse which utilizes the vagus pathway to cause heart block. When this occurs the blood pressure falls rapidly. In these instances a characteristic reproduction of the symptoms can be obtained by compressing the carotid bulb between the examiner's fingers and the transverse processes of the cervical spine. The attack usually ends spontaneously soon after the release of pressure and it can be terminated by the intravenous use of atropine which acts on the vagus nerve endings in the heart. Epinephrine may also help in relieving or preventing attacks by its direct stimulating effect on the heart.

In the second type of reflex neither the heart rate nor blood pressure is affected and there is no demonstrable change in the blood supply to the brain. The origin of the reflex is the same, that is, in the carotid sinus, and the

effect appears to be directly on the central nervous system. The attacks are produced by the same manual stimulation as in the vagal type but atropine and epinephrine are without effect. Local anesthesia in the form of procaine, applied directly to the sinus, abolishes the reflex.

In the third type there is a reflex vasodilatation and a drop in blood pressure independent of any change in the cardiac mechanism. In this type, which is analogous to clinical shock in many ways, the symptoms are caused by cerebral ischemia due to the drop in blood pressure. Attacks may be initiated, as in the other two types, by carotid pressure. Since the vagus nerve apparently does not take part in this type of seizure, treatment with belladonna is without effect. Epinephrine, on the other hand, is effective due to its peripheral vasoconstriction which causes elevation of the blood pressure.

The initial symptom of which the patient most frequently complains is the attack of unconsciousness which may vary from a slight "all gone" feeling to complete syncope and even to convulsions. There are often prodromal sensations such as a feeling of dizziness or weakness or ringing in the ears. It requires some care to differentiate Ménière's disease from hyperactive carotid sinus syncope. Usually, however, in the latter condition true vertigo is not present. Often there will be a history of occasional major attacks accompanied by total loss of consciousness, and more frequent intervening episodes during which only minor symptoms are present. The difficulty usually occurs when the patient is standing or sitting and may be relieved, as in simple syncope, by lowering the head. Sudden movements of the neck or pressure as from a tight collar may precipitate an attack. I recall one patient who noted symptoms each morning while leaving home. At that time he was accustomed to turn and wave to his youngster and apparently a combination of pressure and of twisting the neck initiated the symptoms. After the attack has been terminated no symptoms as a rule remain. Occasional instances of tongue biting or incontinence may occur but on investigation, no relation between hyperactive carotid sinus reflex and epilepsy has been found. The most characteristic thing about the syndrome is that all the manifesta-



tions may be easily elicited by carotid pressure. If the pressure is light and quickly terminated the patient may only note transient faintness with perhaps some numbness and tingling in the extremities. The examiner will usually be able to note pallor of the face. Convulsions are not uncommon, particularly if the pressure is continued long.

Occasionally local changes occur in the region of the sinus; if a pathologic condition is present, such as a large lymph node exerting undue pressure, surgical correction may be indicated. Digitalis sensitizes the carotid sinus reflex. When elderly people who complain of weakness or dizziness are given digitalis on the assumption that the cardiac mechanism is responsible for the symptoms, such symptoms are apt to be aggravated rather than helped. Routine use of digitalis to prevent cardiac failure is not indicated unless cardiac failure is present. Thus, if digitalis has been given prior to operation, the sensitized carotid sinus may be stimulated by the usual manipulation about the neck coincident with anesthesia. In such instances there may be serious results. I recall being asked to take an emergency operating room call one day. On arriving there I noted a patient whose heart, the surgeon said, had suddenly stopped beating but which had again resumed its work after a few seconds. In this case a hyperactive carotid sinus was present; the patient had been given digitalis, and the anesthetist had used undue pressure about the neck in the application of the mask. It is best not to stimulate both sinuses at the same time. If a hyperactive condition is present proper response should occur in from five to fifteen seconds after pressure is applied to one sinus. It is necessary to locate the carotid bulb accurately before continuing. This can best be done by slightly extending the head and turning it a little to the opposite side. In this position it is usually possible to feel the point of maximum carotid pulsation which is the carotid sinus. Symptoms are more readily elicited when the patient is in a sitting position.

#### TREATMENT

General hygienic measures are usually of considerable benefit. Fatigue, emotional upsets and worry should be eliminated when possible. The wearing of tight collars should be discouraged and sudden movements of the head

should be avoided. Often one of the chief benefits derived from an accurate diagnosis is the reassurance which it is possible to give the patient. Except in rare instances the hyperactive carotid sinus reflex is not a hazard to life unless the patient is accustomed to working in dangerous places. Thus, it is possible that an elderly person with this syndrome who is addicted to walking in high places should be discouraged in such practice. In two of the cases to be presented a previous diagnosis of a "slight stroke" had been made. With the demonstration in these cases of a hyperactive carotid reflex, one is entitled to believe that the previous attack of unconsciousness, diagnosed "stroke", was probably syncope caused by the reflex.

If the symptoms are caused by the vagal type of reflex, with slowing or stopping of the heart action, the attacks may be prevented by the use of belladonna or atropine. The drug should be given in the amount necessary to prevent symptoms even though this causes disagreeable effects such as dryness of the mouth. If these secondary reactions are intolerable ephedrine sulfate, from 30 to 40 mg. three times a day, may be used. This drug causes increased sensitivity of the heart muscle and may allow the heart to set up an ectopic rhythm sufficient to prevent symptoms when heart block occurs. In the cerebral type of reflex, if ordinary hygienic measures are not sufficient, surgical denervation should be considered. Such a step, however, should not be taken until all other measures have been tried and unless the attacks are of such frequency and severity as to completely ruin the patient's enjoyment of life. In the simple vasomotor type or reflex, where the chief manifestation is a fall in the blood pressure secondary to reflex vasodilatation, the symptoms may often be abolished by the administration of ephedrine.

#### REPORT OF CASES

Case No. 1. This was a white man, 58 years of age. The patient stated that in February, 1938, while playing cards, he had had a peculiar sensation of weakness. He did not actually faint but staggered slightly when he walked. He went home and to bed; a physician was called who told him that he had experienced a slight "stroke." He remained in bed for a month and then spent two months at Hot Springs. Since then he has been active in his business. Examination was not remarkable except for the fact that it disclosed a slight hypertension, (165 systolic, 100 diastolic); the cardiac findings were not abnormal. There were no residuals indicative of a previous cerebral hemorrhage. Pressure over the right carotid sinus caused cardiac asystole.



Case 1. W. M. 58



Case 2. W. M. 62



Case 3. W. M. 65



Case 4. W. F. 55

*Electrocardiographic record of cases presented, showing the result of digital pressure on the carotid bulb. In each case the artery was compressed just after the start of the record, and pressure released at onset of asystole.*

Case No. 2. This man was 62 years old. In August, 1938 he had had a typical anterior coronary thrombosis. After an adequate period of convalescence he had engaged in light work but had spent his winters in Florida. He had occasional anginal distress which was relieved by nitroglycerin.

For the past two years he had experienced occasional bouts of dizziness. These would be accompanied by a pounding of the heart and if he were walking at the time he would actually stagger. He had never fainted. The examination was not noteworthy except for the observation of a slight cardiac hypertrophy. Pressure over the right carotid sinus caused cardiac standstill.

Case No. 3. This man of 65 had for many years known he had hypertension. A year ago he was seized with a sensation of faintness accompanied by some vertigo but no actual loss of consciousness. He went to bed and called a physician who expressed the opinion that there had been a slight "stroke". The patient remained in bed for six weeks. Since then he has been well except for occasional attacks of dizziness without any episode of complete loss of consciousness.

The examination showed a blood pressure of 204 systolic, 100 diastolic. There was slight cardiac enlargement. Pressure over the right carotid sinus produced asystole with pallor and transient loss of consciousness.

Case No. 4. This patient, a woman aged 55, was slightly overweight. For the past few weeks she had been having frequent fainting spells but no true vertigo or loss of consciousness. The examination showed the blood pressure to be 210. Pressure over the right carotid sinus produced complete cardiac asystole with loss of consciousness.

#### SUMMARY

1. A hyperactive carotid sinus reflex may cause faintness, atypical vertigo, syncope and convulsions.

2. Such symptoms are the result of motor impulses which cause cardiac slowing, lowering of the blood pressure or intracerebral dysfunction.

3. Such attacks may be reproduced in varying severity by manual compression of the carotid sinus.

4. Digitalis causes increased carotid sen-

sitivity and its routine use should be discouraged.

5. Local lesions in the neck, such as enlarged lymph nodes, may be present.

6. Many of these patients have arteriosclerosis and cerebral arteriosclerosis; by causing atypical responses to normal stimuli, attacks may be brought about.

7. Treatment is predicated on the type of response present and may include either belladonna alkaloids or drugs of the epinephrine-ephedrine group.

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**NEW STATE HEALTH OFFICER**

Dr. William H. Pickett of Jacksonville has been appointed State Health Officer by Governor Spessard L. Holland, to fill the unexpired term of Dr. A. B. McCreary, who died on January 24. Having served as Assistant Health Officer since June, 1940, he comes to this office entirely familiar with its duties and responsibilities.

Dr. Pickett has been engaged in public health work since 1922 when he was graduated from the Harvard Technology School of Public Health. He organized and directed new bureaus for the prevention of blindness in the State of Missouri and for the United States Public Health Service.

Other public health positions held by Dr. Pickett include county health director in Montana, city health officer of Saginaw, Michigan, medical director of the county contagious and tuberculosis hospital in Saginaw, and director of the Escambia County Health Unit, Florida.

Dr. Pickett is a member of the Duval County Medical Society; the Florida, Southern, and American Medical Associations; a life member and Fellow of the American Public Health Association; and a member of the Kiwanis Club and the Army and Navy Club of Jacksonville.

**PRE-CONVENTION MEETING**

The Pre-Convention Meeting of the Association was held at the Angebilt Hotel, Orlando, January 19. Beginning at 9 a.m., the morning was devoted to meetings of the council and Association committees. Twelve such meetings were scheduled.

Luncheon was served in the main dining room, followed by a General Session, which was called to order by Dr. J. Sam Turberville, president, at 2:30 p.m. The gavel was turned over to Dr. Robert B. McIver, chairman of the Council, who asked for the reading of the annual reports of councilors. These reports, published elsewhere in this Journal, showed that organized medicine throughout the state is growing, not only in size but in the scope of its influence.

Dr. Turberville then resumed the Chair. The following chairmen of standing committees were present and made preliminary reports of the activities of their committees: Dr. Gilbert S. Osinecup, Executive; Dr. Herbert E. White, Scientific Work; Dr. Robert D. Ferguson, Medical Education and Hospitals; Dr. J. Ralston Wells, Public Relations; Dr. T. Z. Cason, Medical Postgraduate Course; Dr. Alfred G. Levin for Dr. James M. Hoffman, Cancer Control; Dr. Harrison A. Walker, Medical Economics; Dr. M. J. Flipse, Tuberculosis and Public Health; Dr. Warren W. Quillian, Child Health, and Dr. Gordon H. Ira, Advisory to Woman's Auxiliary. Dr. W. Henry Spiers reported for the Advisory Board of Past Presidents. In the absence of Dr. Ferdinand Richards, chairman of the Committee on Maternal Welfare, Dr. Homer Pearson read a letter from Dr. William H. Ball, director of the Bureau of Maternal and Child Health of the State Board of Health, recommending the enlargement of the maternal death survey being carried out by that department in cooperation with the Maternal Welfare Committee.

A rising vote of thanks was given to the Orange County Medical Society for the entertainment afforded on this occasion.

A motion was passed that the secretary convey to Dr. Stewart G. Thompson, managing director, greetings from those present at this meeting and their wishes for his speedy recovery. This was the first meeting in fifteen years which Dr. Thompson had been unable to attend.

Dr. Edward Jelks, chairman of the Florida Committee on Medical Preparedness, then conducted a round table discussion of problems connected with the preparedness program in Florida.

The Pre-Convention meeting adjourned at 4:45 p.m.

#### REGISTRATION

The total registration during the general session was 65.

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#### EXAMINATIONS FOR APPOINTMENTS IN THE MEDICAL CORPS OF THE U. S. NAVY

The Surgeon General of the Navy, Rear Admiral Ross T. McIntire, (MC), U. S. N., announces the next examination for appointments as commissioned officers in the Medical Department of the Navy will be held at all of the larger naval hospitals and at the Naval Medical Center, Washington, D. C., on May 12 to 15, inclusive, 1941. Applicants for appointment as Assistant Surgeon, effective approximately two months from date of examinations, may now request authorization to appear for examination. Requests for such authorization should reach the Bureau of Medicine and Surgery prior to April 21, 1941.

Applicants for appointment as Assistant Surgeon are required to be citizens of the United States between the ages of 21 and 31, graduates of Class "A" medical schools, to have had at least one year of intern training in a hospital accredited for intern training by the Council on Medical Education and Hospitals of the American Medical Association, and to meet the physical and other requirements for appointment.

The Medical Corps of the Navy is being increased in strength proportionate to the expanding Navy and U. S. Marine Corps. Service for medical officers is active professionally and attractive in assignments at sea, on shore duty, and on foreign shore stations. In the normal rotation of assignments every practicable consideration is given the officer's preference for the type of duty he desires. The Naval Medical School at the Naval Medical Center, Washington, D. C., offers a course of postgraduate instruction and instruction in those branches of medicine which apply particularly to naval service. Under normal conditions newly appointed officers are assigned to this course upon their entry into the service or during their first few years of naval service.

Naval medical officers are encouraged to develop a specialty after they have completed their first cruise at sea. Shortly before completion of his sea duty, the Navy doctor may request special training in the Medical Department specialty in which he is interested. Such requests are acted upon by a special board in the Bureau of Medicine and Surgery and, if



approved, the Navy doctor is sent to a hospital for training and experience in that specialty for one year. Upon completion of this training, he is assigned to postgraduate instruction at one of the many medical centers in the United States for a period up to one year after which, in so far as is practicable, he is retained in that type of duty. Some of the specialties in which qualifications may be obtained are: Surgery; Medicine; Otolaryngology; X-ray; Laboratory; Pathology; Public Health; Psychiatry; Deep-Sea Diving; Aviation Medicine (Flight Surgery); Gas Warfare, and Tropical Medicine. Several officers have been trained in research particularly applying to problems arising in submarine and aviation activities.

The naval service affords excellent opportunities for professional advancement. Medical officers receive the same pay and allowances as other officers of the Navy in corresponding ranks and the equivalent amount of service.

A circular of information for applicants for appointment as medical officers of the Navy, containing full information regarding physical requirements, professional examinations, rates of pay, and promotion and retirement data may be obtained by addressing the Bureau of Medicine and Surgery, Navy Department, Washington, D. C.

### THE QUININE INDUSTRY

Since the invasion of Holland on May 10, there have been persistent rumors of Nazi attempts to interfere with the Dutch quinine industry. The actual facts appear to warrant the following statement.

Heretofore Amsterdam has been the headquarters of an industry which has assured the supply of this world-wide remedy for malaria. By royal decree the management of this quinine industry was transferred to Bandoeng, Java, on May 14, 1940.

We have been warned, although the warning was scarcely necessary, to have no communication with our former associates in Amsterdam for fear such correspondence might be diverted to Nazi ends.

Java is now the center of the world's quinine industry, where ample production is assured of both cinchona bark and manufactured quinine. The latter is produced at the Bandoengsche Kininefabriek, the largest quinine factory in existence. There is thus no danger of a quinine shortage anywhere in the world.

The quinine industry, now centralized in the Netherlands East Indies, is completely Dutch and completely determined that Holland's plight shall not be turned to Nazi advantage. That attitude also actuates those connected either with the sale of Dutch quinine here or with the research and educational program of that industry.

NORMAN TAYLOR, *Director*  
CINCHONA PRODUCTS INSTITUTE, INC.,  
NEW YORK, N. Y.

*Reprinted from SCIENCE, December 20, 1940*

### AN IMPOSTOR

A person giving his name as "Dr. Samuel S. Strauss" is victimizing hospitals in the South. He represents himself as having been graduated from Tulane University Medical School and having served an internship at Charity Hospital, New Orleans. Both institutions deny having any record of a person of that name.

He was brought to one hospital he victimized after having been picked up in the street following a "collapse," which he claimed was due to lack of food. He was admitted to the hospital, cared for, and sympathetic citizens provided finances. As soon as he received the money he hurriedly departed. He drives a Buick coupe with a 1940 license.

*Reprinted from HOSPITALS, Nov. 1940*

### COUNCILORS' REPORTS

#### FIRST DISTRICT—

WILLIAM CARMEL ROBERTS, M. D., *Panama City*  
Bay, Escambia, Holmes, Okaloosa, Santa Rosa, Walton, Washington.

It is with much esteem and pleasure that I report that this district is in step with the objectives of the Florida Medical Association. The County Societies seem to be up to "par" in all endeavors. Several have been quite outstanding by virtue of their excellent programs, namely, Escambia, Washington-Holmes and Bay. All National and State objectives are receiving due attention, and the proper cooperation is apparent. There is a general trend toward closer unity and organization in the societies, but the proper enthusiasm toward society activities is still lacking in some of the societies. A greater effort will be made to correct this lethargy.

The District Meeting in Pensacola, even though very successful, was poorly attended. This, according to the consensus, was due to the fact that the meeting was held on Saturday afternoon, which is the big "pay-day" in this district.

The saddest event in the district to date, I regret to state, was the untimely death of the outstanding Dr. N. A. Baltzell of Marianna.

#### SEVENTH DISTRICT—

W. C. McCONNELL, M. D., *St. Petersburg*  
Hillsborough, Pinellas, Manatee, Sarasota.

Because of the excellent fellowship of members in, and the cooperation among the component Societies of the Seventh District this report has been the chief duty of the Councilor of the District.

The Southwest District meeting at Dunedin was well attended. Members and their ladies spoke most complimentary of the program of scientific papers and entertainment. The committee on scientific program and the local committee on entertainment are to be congratulated. The latter was composed of Drs. Mease, Harrison and Winchester.

The payment of hotel expense for guest speakers might, if left to local committees, be neglected unintentionally. Therefore, it is recommended that, if exchange of guest speakers for district meetings be perpetuated, the Managing Director, who never forgets any detail, be responsible for making hotel reservations and the Florida Medical Association pay for the guest speaker's accommodations.

#### EIGHTH DISTRICT—

HOWARD V. WEEMS, M. D., *Sebring*  
Polk, Hardee, DeSoto, Highlands, Charlotte, Lee, Glades, Hendry, Collier.

The Polk County Medical Society has a membership of 61 doctors in good standing, a slight increase over last year. Meetings have been well attended and added interest has been given the programs by outstanding

Read before the Pre-Convention meeting, Orlando, January 19, 1941.



speakers from various parts of the state as well as from nearby states. The society has promoted a Health Unit without the support of the county commissioners. Four men have been lost to the Army.

The Lee County Medical Society, which includes members from Collier and Hendry Counties, has 14 members; all dues were paid promptly. Meetings, held once a month, were well attended.

The DeSoto - Hardee - Highlands - Charlotte - Glades County Medical Society has 21 members; dues were all paid early in the year. During this year the society was legally incorporated. Meetings were held monthly except that three summer months comprised a vacation. Programs were interesting and meetings were well attended.

#### TENTH DISTRICT—

ADRIAN M. SAMPLE, M. D. *Ft. Pierce*  
Indian River, Martin, Okeechobee, St. Lucie.

The Tenth Medical District, comprising St. Lucie-Okeechobee-Indian River-Martin Counties, made several advances during the past year.

The local Medical Society, embracing these four counties, had a 100% paid-up membership which cooperated with the State Association in every way possible to advance the cause of organized medicine. The same cooperation has been accorded the Federal Government in its Preparedness Program. Practically all physicians of the four counties are members of the local Society.

Individually and collectively the members during the next two months will exert all possible influence upon our local Senator and Representative against any attempt to modify or repeal The Basic Science Law of the State.

#### ELEVENTH DISTRICT—

ROBERT L. ELLISTON, M. D. *Fort Lauderdale*  
Palm Beach, Broward.

In my opinion, the Palm Beach County and Broward County Medical Societies of the Eleventh Councilor District are in a healthy condition.

In order to bring about a closer union and to encourage the best possible fellowship between the physicians of these two counties, plans are being formulated to have all the members of the district meet with one or the other County Society, at its regular monthly meeting, at least once or twice yearly. The plan suggested, and which will no doubt be adopted by the two societies, is the appointment of an Intersociety Committee, which will handle the details pertaining to these meetings. It is hoped that by such an arrangement the members of the two societies will not only become better acquainted, but that each society may be of aid to the other in the consideration of their mutual problems.

#### TWELFTH DISTRICT—

KENNETH PHILLIPS, M. D. *Miami*  
Dade, Monroe.

No outstanding events have taken place in District 12 during the past year other than the successful Annual District Meeting already reported in the Journal.

The Dade County Society has cooperated from the outset with both the State and National defense committees in any and all capacities when requested. The Society voted in December to increase its own local dues for the purpose of beginning a sinking fund for a future home and building. During the summer, one day was set apart for a stag picnic and recreation day. It proved a howling success and it may be worthwhile for other county societies to consider a similar annual event.

New members have been created at an average rate of two or three each month giving rise to a steady increase in growth. Nothing of special importance has arisen in legislative or civic matters which affect the society directly, except that several members belonging to the reserve have been called into service.

The year as a whole has been marked with a spirit of harmony and good will.

## MARRIAGES AND DEATHS

### MARRIAGES

Dr. Victor Clarholm and Miss Doris Klein of West Palm Beach were married at Stamford, Connecticut on December 27.

Dr. Mary Stewart Howarth and Mr. C. R. M. Shepard of Deland were married on January 25.

Dr. Franklin McElheny and Miss Myrtle Cooke of Miami were married on January 10.

### DEATHS

Dr. Albert H. Freeman of Ocala died January 11, 1941.

Dr. A. B. McCreary of Jacksonville, State Health Officer, died January 24, 1941.

## STATE NEWS ITEMS

The Committee on Medical Postgraduate Course announces that its 1941 Short Course will be held at the George Washington Hotel, Jacksonville from June 23 to 28, inclusive. This will be the tenth successive year in which a postgraduate course has been made available to Florida doctors through the efforts of this committee.

\* \* \*

Region II of the American Academy of Pediatrics will hold a meeting at the John Marshall Hotel, Richmond, Va., April 24 and 25. All members of the State Association who are interested in pediatrics are invited to attend.

\* \* \*

Dr. J. N. Patterson, Director of Laboratories of the State Board of Health since 1938, has been named Assistant Health Officer. Dr. Patterson will continue to direct the activities of the Laboratory with the aid of a well-qualified assistant.

\* \* \*

Three lectures on health topics were given by members of the Duval County Medical Society, under the sponsorship of the Jacksonville Junior Chamber of Commerce, during the month of January. These lectures, open to the public, were as follows:

1. Dr. Louie Limbaugh: "Diseases of the Heart," January 12.
2. Dr. James L. Borland: "The Stomach and Intestines," January 19.
3. Dr. S. R. Norris: "Maternal Health," January 26.

\* \* \*

Dr. M. Wigdor of Miami Beach announces the removal of his offices to 310 Washington Avenue.

Dr. John O. Barfield, formerly of Miami and Apalachicola, has taken over the duties of Director of the City-County Health Department at Panama City.

\* \* \*

A meeting of the South Atlantic Association of Obstetricians and Gynecologists was held February 7 and 8 at the George Washington Hotel, Jacksonville. This Association draws members from Florida, Georgia, North and South Carolina and Virginia. The following Florida doctors contributed to the scientific program:

Dr. C. D. Hoffmann of Orlando read a paper on "Acute Appendicitis in Pregnancy;" Dr. J. M. Hoffman of Pensacola presented "The Role of the Maternity Home in Treating the Low Income Group;" and Dr. W. M. Rowlett of Tampa discussed a paper by Dr. Robert Greenblatt of Augusta, Georgia, on "Role of Corpus Luteum in Dysmenorrhea."

Dr. Gerry R. Holden of Jacksonville is on the Association's Executive Committee.

\* \* \*

The Dillman Pavillion, newest addition to the Good Samaritan Hospital, West Palm Beach, was opened for use on January 5. This new wing consists of 14 attractively appointed rooms.

\* \* \*

Dr. A. L. Stebbins, Director of the City-County Health Unit at Pensacola, has completed a four-weeks' postgraduate course in obstetrics at the Lying-in Hospital of the University of Chicago.

\* \* \*

Dr. W. L. Shackelford, who has resigned the superintendency of the Good Samaritan Hospital at West Palm Beach, was recently awarded a Certificate of Honor by the American Hospital Association. This honor came in recognition of the excellent service he has rendered the Association and the National Hospital Day Committee during the past fifteen years.

\* \* \*

Dr. Alexander Kushner has opened an office for the practice of orthopedic surgery in the Ingraham Building, Miami. He was formerly at Venice, Florida and at the Nebraska Orthopedic Hospital, Lincoln, Nebraska.

Dr. Henry Fuller of Mulberry announces his removal to Lakeland where he has become associated with Drs. Herman Watson, S. Edgar Watson, and Jere W. Annis. His practice will be limited to diagnosis and internal medicine.

\* \* \*

Dr. George A. Dame of Inverness has been appointed Director of the Nassau County Health Unit, with headquarters at Fernandina. Dr. Dame succeeds Dr. I. E. Simmons in this post.

\* \* \*

The Postgraduate Surgical Assembly of the Southeastern Surgical Congress will be held in Richmond, Virginia, March 10, 11, and 12, 1941 at the John Marshall Hotel. This intensive postgraduate lecture course is one of the big surgical assemblies of the year. There will be clinics and lectures covering every branch of surgery by some of the nation's greatest teachers. Prominent doctors from 21 states, including Dr. Robert B. McIver of Jacksonville, have accepted invitations to address the assembly. For information and printed program, write Dr. B. T. Beasley, secretary-treasurer, 701 Hurt Building, Atlanta.

\* \* \*

Dr. Frank G. Slaughter of Jacksonville, author of a new book, "That None Should Die", has been signally honored by having this book selected as the "book of the month" for May by the Book League, a national club. Publication date of this volume will be March 21, 1941.

\* \* \*

Dr. Harrison A. Walker of Miami Beach announces the association of Dr. Guy R. Stoddard in the practice of surgery. Offices of Drs. Walker and Stoddard are at 605 Lincoln Road Building.

\* \* \*

Dr. Bruce H. Douglas, tuberculosis controller, Detroit Health Department, will be the principal speaker at the Annual Conference on Tuberculosis of the Florida Tuberculosis and Health Association, to be held in Jacksonville, April 7 and 8. Many phases of the tuberculosis program in Florida will be discussed by Florida's private practitioners, health officers and members of the staff of the State Sanatorium.

\* \* \*

Dr. Alfred E. O'Neil of Miami announces the removal of his offices to 2554 S.W. Eighth St.

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1. Dornbush, A. C., Peterson, W. H., and Olson, F. R.: "The Carotene and Vitamin A Content of Market Milks." J.A.M.A., May 4, 1940, pp. 1748-1751.

" " "

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### VAN WILLIAM BURNS

At its January meeting the St. Lucie-Okeechobee-Indian River-Martin County Medical Society passed the following Resolutions on the death of Dr. Van William Burns:

WHEREAS, our friend and fellow physician, V. W. Burns, has passed from our midst, and

WHEREAS, in his going, the members of the St. Lucie-Okeechobee-Indian River-Martin County Medical Society feel deeply the loss of a faithful and loyal co-worker who, by his efforts toward the relief of suffering, has endeared himself to the members of the profession and the community;

BE IT THEREFORE RESOLVED by the St. Lucie-Okeechobee-Indian River-Martin County Medical Society that they extend to his wife Mrs. Avis Burns and his daughter, Vanette, their sincere sympathy with the hope that they may find comfort in the knowledge that his loss is shared keenly by those with whom he came in contact, and

BE IT FURTHER RESOLVED that copies of these Resolutions be given to Mrs. Burns, The Florida Medical Association and The Stuart Times, and a copy spread on our minutes for a permanent record.

Adopted by unanimous vote of The St. Lucie-Okeechobee-Indian River-Martin County Medical Society at its regular meeting in Fort Pierce, Florida, January 16th, 1941.

J. D. PARKER, M. D.  
A. M. SAMPLE, M. D.  
Committee.

### ALBERT HOWARD FREEMAN

Dr. Albert H. Freeman of Ocala, a Past President of the Florida Medical Association, died at the United States Veterans Hospital, Bay Pines, on January 11. He had been ill for a number of years and in the hospital for the past six months.

Born July 3, 1866 in Marshall County, Kentucky, Dr. Freeman was graduated from the State Peabody Normal College and taught school while he completed his work at the Kentucky School of Medicine, Louisville. After receiving his M.D. degree in 1892, he located in Briensburg, Kentucky and in the following year was married to Miss May Willis of Dallas, Texas. He did postgraduate work at Tulane University, the New York Polyclinic School of Medicine, and the University of Vienna, specializing in eye, ear, nose and throat work. In 1900 the family moved to Starke, Florida.

Dr. Freeman and his two sons volunteered for service in the army during the World War and served as commissioned officers during the conflict. After the war, Dr. Freeman located in Jacksonville where he practiced his specialty until in 1925 when he moved to Ocala. He retired five years ago because of ill health.

Dr. Freeman was elected president of the Florida Medical Association in 1911; in 1938, at the end of thirty-five years' active membership, he became a Life Member of the Association. He was a past president of the Ocala Rotary Club and some years ago represented the club at a convention of Rotary International held in Europe. He was a member of Marion County Post 27 of the American Legion.

Besides his widow, he is survived by three children, Edwin Freeman of Toronto, Canada, Henry Freeman of New Orleans, and Mrs. L. A. Yates of Tallahassee; two sisters, and two brothers.

### ALBERT BENJAMIN McCREARY

Dr. A. B. McCreary, State Health Officer, died in a Jacksonville hospital on the evening of January 24, at the age of 45. Besides his widow, Mrs. Cornelia Varnell McCreary, he leaves two daughters, Madge and Cornelia, and two sons, Albert and Lloyd; his mother, Mrs. Mamie Smith McCreary, New York City; a sister, Mrs. W. A. Radspinner, also of New York City.

Dr. McCreary was the son of the late Dr. L. B. McCreary, of Kingsport, Tenn.

Dr. McCreary was appointed August 4, 1939, by Governor Fred P. Cone to succeed the late Dr. W. A. McPhaul. For four years prior to his appointment as State Health Officer, he directed the work of the Bureau of Local Health Service of the Florida State Board of Health.

Dr. McCreary was well known throughout the South in both medical and public health circles. Among the positions he held during the past 17 years were epidemiologist, Department of Health, Memphis; assistant in public health, University of Tennessee, Memphis; member of the staff, General Hospital and Saint Joseph's Hospital, Memphis; director, bureau of epidemiology, North Carolina State Board of Health; health officer, Northampton County, Virginia, and also of Richmond County, North Carolina; member of the staff, State Hospital, Raleigh, N. C. His A. B. degree was earned at King College, Bristol, Tenn.; his M. D. at University of Tennessee, Memphis.

He was immediate past president of the Florida Public Health Association and member of the National Malaria Committee. Dr.



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1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," *Am. J. Syph. Gon. & Ven. Dis.*, 23, 201 (March) 1939.

\*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

McCreary was an Associate Fellow of the College of Physicians. He held membership also in the Duval County Medical Society, the Florida Medical Association, American Medical Association and the American Public Health Association.

## COMPONENT COUNTY SOCIETIES

### BREVARD

Dr. T. C. Kenaston of Cocoa was elected president of the Brevard County Medical Society at a meeting held in Cocoa on the evening of January 15. Dr. G. H. Christie of Titusville was named vice-president and Dr. I. K. Hicks of Melbourne was re-elected secretary and treasurer.

\* \* \*

### DADE

The Dade County Medical Society held its February meeting at the Jackson Memorial Hospital, February 5. The following program was presented:

"Nephritis in Children as Observed in Florida"—Hillard W. Willis; discussion by C. F. Roche, and Lynn W. Whelchel.  
"Pathology of Natural Unexpected Death"—Philipp Rezek; discussion by Scheffel H. Wright and John W. Snyder.

\* \* \*

### LEON-GADSDEN-LIBERTY-WAKULLA-JEFFERSON

At the quarterly meeting of the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society held at the Wakulla Springs Hotel, Thursday, January 16, the following scientific program was presented:

"Common Anomalies of the Lower Spine"—Herbert W. Virgin, Jr., Pensacola.

"Treatment of Burns"—F. T. Holland, Tallahassee.

"Case report: Wilms Tumor"—B. A. Wilkinson, Tallahassee.

\* \* \*

### PASCO-HERNANDO-CITRUS

Dr. P. J. Hudson entertained the Pasco-Hernando-Citrus County Medical Society at his home in Crystal River, Thursday evening, January 9.

A fish and oyster dinner was served by Dr. and Mrs. Hudson in their home after which a business meeting was held in Dr. Hudson's office.

Minutes of the last meeting were read and

adopted. Interesting case reports were given and discussed by the doctors present. Drs. J. N. Moore, H. F. Watt and C. W. Mimms of Ocala, special guests of the society, made interesting talks.

Dr. G. R. Creekmore of Brooksville invited the society to meet with him in February.

\* \* \*

### PINELLAS

The first meeting of the year held by the Pinellas County Medical Society took place on January 3 at the Shrine Club, St. Petersburg. The following scientific program was presented:

"Two Fatal Cases of Poisoning by Barbiturates"—W. W. Harden and J. B. Quicksall.

"Suggestions on Dermatologic Therapy in General"—L. B. Mount.

"Preoperative Care in Hyperthyroidism"—R. W. S. Owen.

"Congenital Hemolytic Icterus"—Paul L. White.

The Society met again on January 17, to enjoy the following program:

Five minute case reports opened by Drs. C. Rudolph and R. D. Murphy.

Ten minute talks by Drs. O. O. Feaster and N. M. Marr.

Fifteen minute essay by Dr. C. S. Franckle on "Water Balance"; discussions by Drs. R. W. S. Owen and A. R. Frederick.

\* \* \*

### POLK

Dr. Barry Wood, associate professor of Medicine at Johns Hopkins University, was principal speaker at a dinner given by the Polk County Medical Society at the Walesbilt Hotel, Lake Wales, on January 8. Dr. Wood spoke on "Pneumonia" which was also the topic of a discussion by Dr. Spencer A. Folsom of Orlando.

Preceding the dinner, the members of the society, their wives and guests were entertained at the Lake Wales Hospital. After an inspection of the hospital, light refreshments were served.


\* \* \*

### PUTNAM

The annual meeting of the Putnam County Medical Society was held at the Sea House, Palatka on the evening of January 11, where a delicious dinner was served. At the business meeting held after the dinner, the following officers were elected: president—Dr. C. M. Knight, Palatka; secretary and treasurer—Dr. J. Worth Brantley, Grandin.



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## SARASOTA

Dr. J. C. Patterson of Sarasota was elected president of the Sarasota County Medical Society at a joint meeting of that Society and the Manatee County Medical Society held in December. Other officers are: Dr. T. W. Taylor, Sarasota, vice-president; Dr. Stanley T. Martin, Sarasota, secretary-treasurer. Dr. Millard B. White was named delegate to the State Convention and Dr. John J. Jares, alternate delegate.

\* \* \*

## WASHINGTON-HOLMES

The following officers have been elected by the Washington-Holmes County Medical Society to serve for the ensuing year: president, Dr. N. J. Dawkins, Vernon; secretary and treasurer, Dr. B. W. Dalton, Vernon.

## ADVERTISERS' NOTES

STATUS OF THE MEAD JOHNSON  
VITAMIN A AWARD\*

Meeting in New York June 4, 1937, the Judges\*\* stated that the presentation of the Award "at this time is not warranted since no clinical investigation on vitamin A has yet been published which completely answers any of the objectives of the original proposal. The Judges, therefore, agreed to defer further consideration of the granting of this award until December 31, 1939. This action was taken because of the existence of pronounced differences of opinion among investigators as to the reliability of any method yet proposed for determining the actual vitamin A requirements."

On November 19, 1940, the Judges met at Memphis and stated that "considerable progress in research with vitamin A has been made, principally along two main lines of endeavor. The fields showing most promise are those involving dark adaptation and blood serum studies. The Judges feel that there is still too much uncertainty about the relative merits of several investigations to warrant making the award at this time. It was, therefore, agreed that the giving of the award be postponed until clear resolution of various factors is achieved."

The sum of \$15,000, called for by the Main Award, remains as a cash deposit in escrow with the Continental Illinois National Bank and Trust Company of Chicago, and will be paid immediately upon official notification of the Judges' decision.

\*\$15,000 Award for Clinical Investigation. There was also a \$5,000 Award for laboratory investigation, which was awarded by the Judges April 10, 1935, one-half to Dr. Karl E. Mason, Vanderbilt University and one-half to Dr. S. B. Wolbach, Harvard University. Full information will be found in the J.A.M.A., Jan. 30, 1932, May 12, 1934, Apr. 27, 1935, Oct. 23, 1937.

\*\*The Judges are: ISAAC A. ABT, Northwestern University Medical School, Chicago; K. D. BLACKFAN, Harvard University Medical School, Boston; ALAN BROWN, University of Toronto, Toronto, Canada; HORTON R. CASPARIS, Vanderbilt University, Nashville; S. W. CLAUSEN, University of Rochester, Rochester, N. Y.; H. F. HELMHOLZ, Mayo Clinic, Rochester, Minn.; E. V. MCCOLLUM, Johns Hopkins University, Baltimore; L. T. ROYSTER, University of Virginia, University, Virginia; ROBERT A. STRONG, Tulane University, New Orleans, La.



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The apparently high incidence of subclinical deficiency states associated with lack of the vitamin B complex and the difficulty of recognizing and diagnosing such conditions make the announcement of a new motion picture on the vitamin B complex one of special interest. The title of the new film is "The Vitamin B Complex;" it is entirely in 16 mm. Kodachrome. A sound as well as a silent version is available to medical societies and medical schools.

The film is based largely on clinical material from the Nutrition Clinic, Hillman Hospital, Birmingham, Ala. The cases selected for the most part were not so much those exhibiting the classical syndromes, but rather were of the mild type frequently involving mixed deficiency states and less endemic in character.

A brief discussion of the physiological properties of the individual and better known members of the vitamin B complex introduces the film and serves as a background for the very generous exposition of the various clinical cases that comprise the balance of the picture. Not the least interesting of the features of the film is the marked fidelity of the colors to the dermatological lesions which are reproduced.

Special emphasis is given in the film to the promptness and specificity of the therapeutic response when diagnosis has been correct. The dietary management of B complex deficiency states is outlined and harmonized with the application of the separate crystalline components of the complex.

The film, "The Vitamin B Complex", was produced under the supervision of the scientific and medical staffs of E. R. Squibb & Sons, and was reviewed before release by authorities of international repute in the field of medicine and nutrition. There is no advertising in the film which is offered solely as a conservative review of the present status of the subject. Inquiries with reference to the loan of the film may be addressed to E. R. Squibb & Sons, Professional Service Department, 745 Fifth Avenue, New York, N. Y.

## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**Treating the Problem Drinker, McCONNELL, WHITMAN CARLISLE, St. Petersburg, Med. World, 58: 301-303 (May), 1940.**

Various alcoholic "cures" of the past are reviewed.

The author's routine in cases of alcoholism, when the patient is not in a state of delirium tremens, consists of the abrupt withdrawal of alcohol. For two days 10 units of insulin three times a day are given before food and 2 grams of sodium chloride are given by capsule every four hours. A glass of sweet orange juice is given every hour while the patient is awake. A large glass of water is given instead of the orange juice when insulin is injected.

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**STATE AND SECTIONAL MEETINGS**

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Medical Association	J. Sam Turberville, Century	Shaler Richardson, Jacksonville	Jacksonville, Apr. 28-30, 1941
Medical Districts:			
Northwest	B. A. Wilkinson, Tallahassee	Stewart Thompson, Jacksonville	Tallahassee, 1941
North Central	William S. Nichols, Lake City	" " "	Gainesville, 1941
Northeast	Robt. B. McIver, Jacksonville	" " "	St. Augustine, 1941
Southwest	W. C. McConnell, St. Petersburg	" " "	Bartow, 1941
South Central	A. M. Sample, Ft. Pierce	" " "	Orlando, 1941
Southeast	Kenneth Phillips, Miami	" " "	Ft. Lauderdale, 1941
Florida Medical Association	Samuel A. Gordon, Marion	D. L. Cannon, Montgomery	Mobile, Ala., Apr. 15-17, 1941
Florida Medical Assn. of	J. C. Patterson, Cuthbert	E. D. Shanks, Atlanta	Macon, May 13-16, 1941
Florida—			
Florida, Am. College Phys.	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami	Jacksonville, 1941
Florida Dental Society	I. W. Shields, Miami	W. P. Wood, Jr., Tampa	Hollywood, 1941
Florida, of Derm. and Syph.	Alan Brown, Jacksonville	Lauren M. Sompayrac, Jacksonville	Jacksonville, 1941
Florida, Coast Medical Association	J. S. Stewart, Miami	J. Ralston Wells, Daytona Beach	
Florida, Hospital Association	W. L. Shackelford, W. Palm Bch.	Mr. T. F. Alexander, Jacksonville	New Orleans, 1941
Florida, of Industrial Surgeons	A. M. Bidwell, Tampa	T. H. Roberts, Lakeland	Jacksonville, 1941
Florida, of Postgraduate Course	Turner Z. Cason, Jacksonville	Chairman	
Florida, of Ophthal. & Otol.	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami	Jacksonville, 1941
Florida, Nurses Association	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Florida, Podiatric Society	Warren W. Quillian, Coral Gables	G. N. Leonard, Miami Beach	Hollywood, Nov. 1941
Florida, Public Health Association	L. J. Graves, Tallahassee	E. M. L'Engle, Jacksonville	Orlando, December, 1941
Florida, Radiological Society	J. H. Lucinian, Miami	E. M. Hendricks, Ft. Lauderdale	Jacksonville, 1941
Florida, of Way Surgeons' Association	Leland F. Carlton, Tampa	W. C. Page, Cocoa	Jacksonville, 1941
Florida, of Pharmaceutical Association	Mr. P. A. Penberthy, Tampa	Mr. R. K. Richards, Ft. Myers	Jacksonville, May, 1941
Florida, of Tuberculosis & Health Assn.	Mr. E. M. Newald, Orlando	Mrs. C. R. Whitaker, Eustis	Jacksonville, April 7, 8, 1941
Florida, of Shooshee Valley Med. Assn.	Frank K. Boland, Atlanta	Robert B. McIver, Jacksonville	Jacksonville, July 8-10, 1941
Florida, of Coast Clinical Society	J. S. Turberville, Century	J. C. McSween, Pensacola	Pensacola, October, 1941
Florida, of Sec., Am. Cong. Phys. Ther.	E. C. MacCordy, St. Petersburg	Kenneth Phillips, Miami	Chattanooga, May, 1941
Florida, of Eastern Surgical Congress	Irvin Abell, Louisville	B. T. Beasley, Atlanta	Richmond, Va., Mar., 1941
Florida, of Western Medical Association	Paul H. Ringer, Asheville	Mr. C. P. Loran, Birmingham	St. Louis, Nov., 1941
Florida, of Apalachicola River Medical Society	T. H. Bates, Lake City	H. S. Howell, Lake City	



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## DUVAL COUNTY AUXILIARY

The regular quarterly meeting of the Woman's Auxiliary to the Duval County Medical Society, was held on Thursday afternoon January 9, at 3 o'clock, in the home of Mrs. Gordon H. Ira, on Challen Avenue, Jacksonville.

Mrs. E. W. Veal introduced the guest speaker, Dr. Wm. H. McCullagh, who gave a most interesting talk on "The Psychosis of Hitler." He read Hitler's horoscope which described the characteristics of the man who has attracted the attention of the whole world today. He stated that Hitler's father was married three times and his third wife, the mother of Hitler, was a slave girl in the home of his first wife. His father had a violent temper and lived in poverty. Hitler learned from his father that force was the best rule if one is to dominate. Hitler was described as a day dreamer, hysterical, untruthful and homosexual.

Mrs. W. J. Barge of Miami, a member of the Dade County Medical Auxiliary and Finance chairman of the State Medical Auxiliary, was introduced by the president, Mrs. Victor H. Hughes, and given a warm welcome at the meeting.

Reports from the various officers and committee chairmen showed an increase in the activities of the Auxiliary. A discussion followed as to plans for the state convention to be held here in April.

During the social hour members and guests were invited into the dining room where delicious refreshments were served from a beauti-

fully appointed table overlaid with a handsome lace cover, and centered with an artistic arrangement of mixed flowers in an oblong silver tray centered with a red lighted candle. Mrs. Victor H. Hughes poured. About forty attended the meeting.

## IN MEMORIAM

The Woman's Auxiliary to the Florida Medical Association regrets the passing of Mrs. Mae Bell Kennedy Spiers, of Orlando, on December 18, 1940.

Mrs. Spiers was the wife of Dr. W. H. Spiers, who is a past president of the Florida Medical Association and of the Orange County Medical Society. She was an active member of the Methodist Church and had served very efficiently on the state board of the Woman's Auxiliary to the Florida Medical Association. She was president of the Ladies' Auxiliary to the Orange County Medical Society in 1937, and president of the Orange County Tuberculosis Association in 1938.

Mrs. Spiers, daughter of Capt. and Mrs. James A. Kennedy, was born on November 6, 1890, at Cohutta, Ga. She moved from Cohutta to Jacksonville in 1900 and was married to Dr. Spiers on March 10, 1908. Surviving are her husband and two sons, W. H. Spiers, Jr., and J. K. Spiers. Funeral services were held at the Carey Hand Chapel in Orlando, with Dr. A. Fred Turner, officiating.

Her life is ended here,  
Her earthly race is run,  
She has passed to a New World  
Where the angels bid her come.  
It is hard indeed to lose her,  
She lived a life so true,  
But we thank God He gave her  
For those years so few.  
Our lives have been made better  
To have known Mrs. Spiers here.  
May we live our lives as well  
And meet her some day, up There.

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COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	Amelia H. Lisenby, M.D. Panama City	William C. Roberts, M.D. Panama City		10		A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	Sidney G. Kennedy, M.D. 511 American Nat. Bk. Bldg. Pensacola	W. E. Tugwell, M.D. Box 1403 Pensacola	2nd Tuesday 8:00 P. M.	46		
	Walton Okaloosa	A. G. Williams, M.D. Lakewood	B. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington Holmes	N. J. Dawkins, M. D. Vernon	R. W. Dalton, M. D. Vernon		7	6	
	Franklin Gulf	Thos. Meriwether, M.D. Wewahatchka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7		A-2-'41 B. A. Wilkinson, M.D. Tallahassee
B	Jackson *Calhoun	W. R. Wandek, M.D. Marianna	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	10		Northwest District (A) Tallahassee 1941
	Leon Gadsden Liberty Wakulla Jefferson	Sterling E. Wilholt, M. D. Quincy	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	39		
	Columbia *Baker, Hamilton	L. J. Arnold, Jr., M.D. Lake City	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	10		B-3-'41 W. S. Nichols, M.D. Lake City
	Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		8		
	Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	8		
C	Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30		B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion *Levy	Eugene G. Peck, M. D. Commercial Bk. & Tr. Bldg Ocala	Harry F. Watt, M. D. Box 146 Ocala	3rd Thursday 12:30 P. M.	25	17	North Central District (B) Gainesville 1941
	Pasco-Hernando *Citrus	William B. Moon, M. D. Crystal River	G. K. Creckmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	14	11	
	Duval *Clay, Nassau	S. R. Norris, M. D. Medical Arts Bldg. Jacksonville	F. Gordon King, M. D. 424 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	186	99	C-5-'41 R. B. McIver, M.D. Jacksonville N. E. District (C) St. Augustine 1941
	St. Johns	Donald T. Rankin, M.D. East Coast Hospital St. Augustine	Vernon A. Lockwood, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	10		
D	Putnam	C. M. Knight, M.D. Palatka	J. Worth Brantley, M.D. Grandin	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	11		C-6-'42 Maximilian Stern, M.D. Daytona Beach
	Volusia *Flagler	J. R. Chandler, M. D. 110 S. Ridgewood Ave. Daytona Beach	R. L. Miller, M.D. 238 1/2 S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	40		
	Hillsborough	Robert G. Nelson, M. D. 712 Citizens Bank Bldg. Tampa	James S. Grabie, M. D. 511 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	110	42	D-7-'41 W. C. McConnell, M.D. St. Petersburg
	Manatee	W. E. Wentzel, M.D. Box 245 Bradenton	Wm. D. Sugg, M. D. Bradenton Bank Bldg. Bradenton	3rd Tuesday 7:00 P. M.	14		
	Pinellas	Major N. W. Gable, M. C. 116th Field Artillery Camp Blanding	W. C. McConnell, M.D. 813 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	104	86	
E	Sarasota	John C. Patterson M. D. Palmer Nat. Bk. Bldg. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	15		
	DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21		D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	M. F. Johnson, M. D. Box 1268 Fort Myers	H. Quillian Jones, M.D. 18-20 Leon Bldg. Fort Myers	3rd Friday 7:30 P. M.	16	15	Southwest District (D) Bartow 1941
	Polk	Bruce R. Tinkler, M. D. Lake Wales	S. Edgar Watson, M. D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62		
	Brevard	T. C. Kenaston, M. D. 501 Delaney Ave. Cocoa	I. K. Hicks, M.D. Melbourne	3rd Wednesday	11	4	E-9-'42 J. R. Chappell, M.D. Orlando
F	Lake *Sumter	Marlon B. O'Kelley, M.D. 203 First Natl. Bank Bldg. Leesburg	Clyde F. Bowle, M. D. 1112 W. Main St. Leesburg	1st Thursday 12:30 P. M.	17	1	
	Orange *Oscola	Frank D. Gray, M. D. 19 W. Washington St. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87		South Central District (E) Orlando 1941
	Seminole	Kenneth R. Bell, M. D. 208 Melsch Bldg. Sanford	Thomas F. McDaniel, M. D. Seminole County Bk. Bldg. Sanford	2nd Monday 7:00 P. M.	13		
	St. Lucie-Okeechobee- Indian River-Martin	Francis A. Gowdy, M.D. Ft. Pierce	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	18		E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	38		F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	Willbur O. Arnold, M. D. Box 1785 W. Palm Beach	William E. Blippus, M. D. 601 Guaranty Bldg. W. Palm Beach	4th Monday 8:00 P. M.	67	23	S. E. District (F) Ft. Lauderdale 1941
	Dade	C. Larimore Perry, M. D. 525 N. E. 15th St. Miami	Herbert Elchert, M.D. 538 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	328	64	
	Monroe	Harry C. Gale, M.D. 532 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5		F-12-'41 Kenneth Phillips, M.D. Miami

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1930

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## CONTENTS

An Evaluation of the Treatment of Cryptorchidism, Palmer R. Kundert, M. D., and Louis M. Orr, M. D., Orlando	437
The Role of Roentgen Therapy in Nonmalignant Disease, Alfred G. Levin, M. D., Miami	442
The Devitalized Tooth: A Factor in Ophthalmology, Bascom H. Palmer, M. D., Miami	448
A Case of Staphylococcic Septicemia Treated with Sulfamethyl- thiazole, J. H. Pound, M. D., Tallahassee	451
Comparison of Roentgenologic and Operative Findings in 78 Caldwell-Luc Operations, Miller O. McNay, M. D., St. Petersburg	453
The Electrocardiogram in Coronary Disease, Franz Stewart, M. D., Miami	455
Editorial: Convention, Jacksonville	458
1941 John Phillips Memorial Award	458
Thirteenth Anniversary Number of the Harofe Haivri	459
Births, Marriages and Deaths	459
State News Items	459
Component County Societies	462
Abstract Department	464
Advertisers' Notes	464
Woman's Auxiliary	468
State and Sectional Meetings	473
Component Societies by Districts	474

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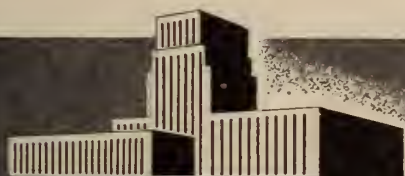
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<sup>1</sup> Sevringhaus, E. L., and Evans, J. S.: *Am. J. M. Sc.* 178:638, Nov. 1929.

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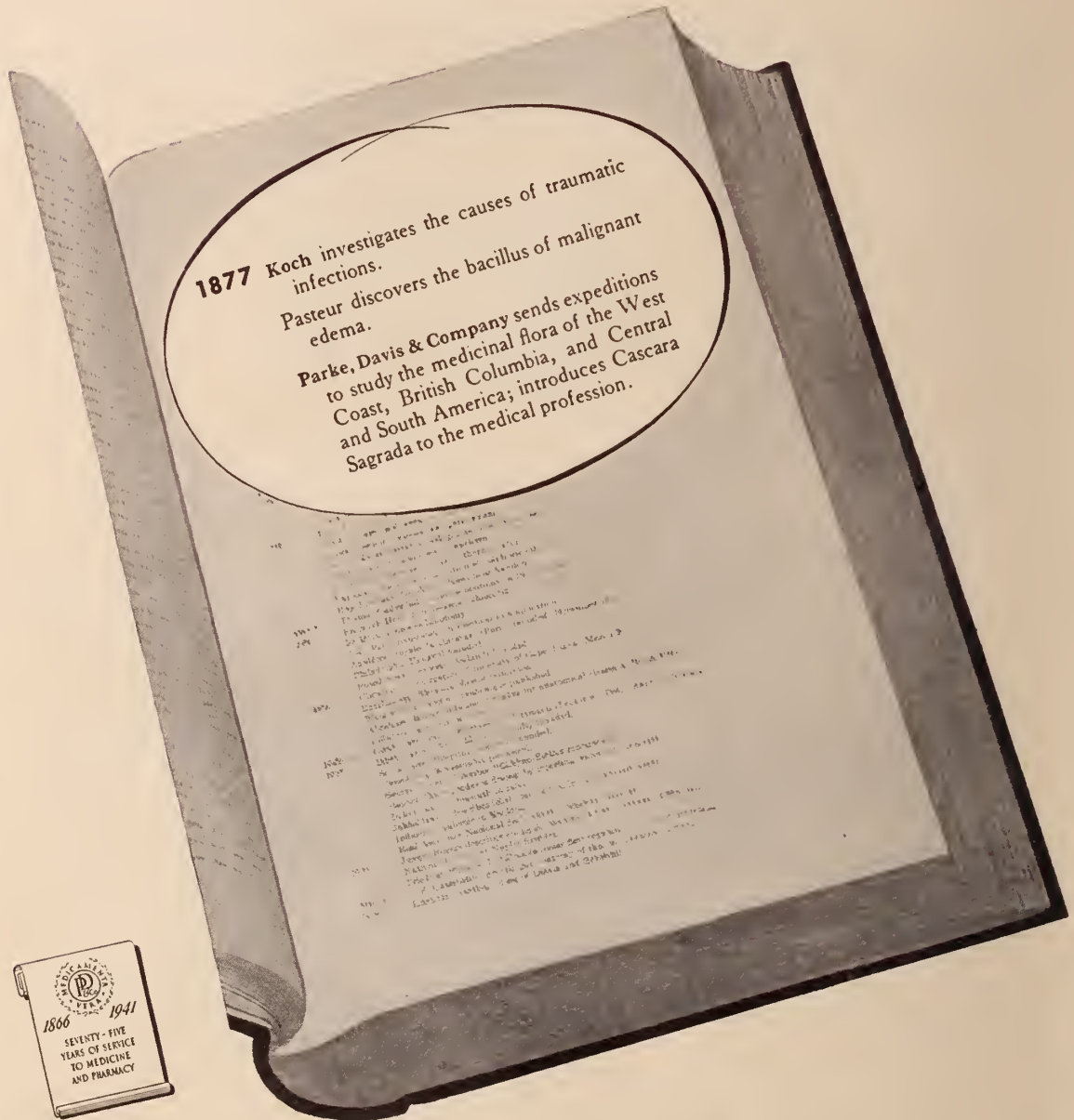
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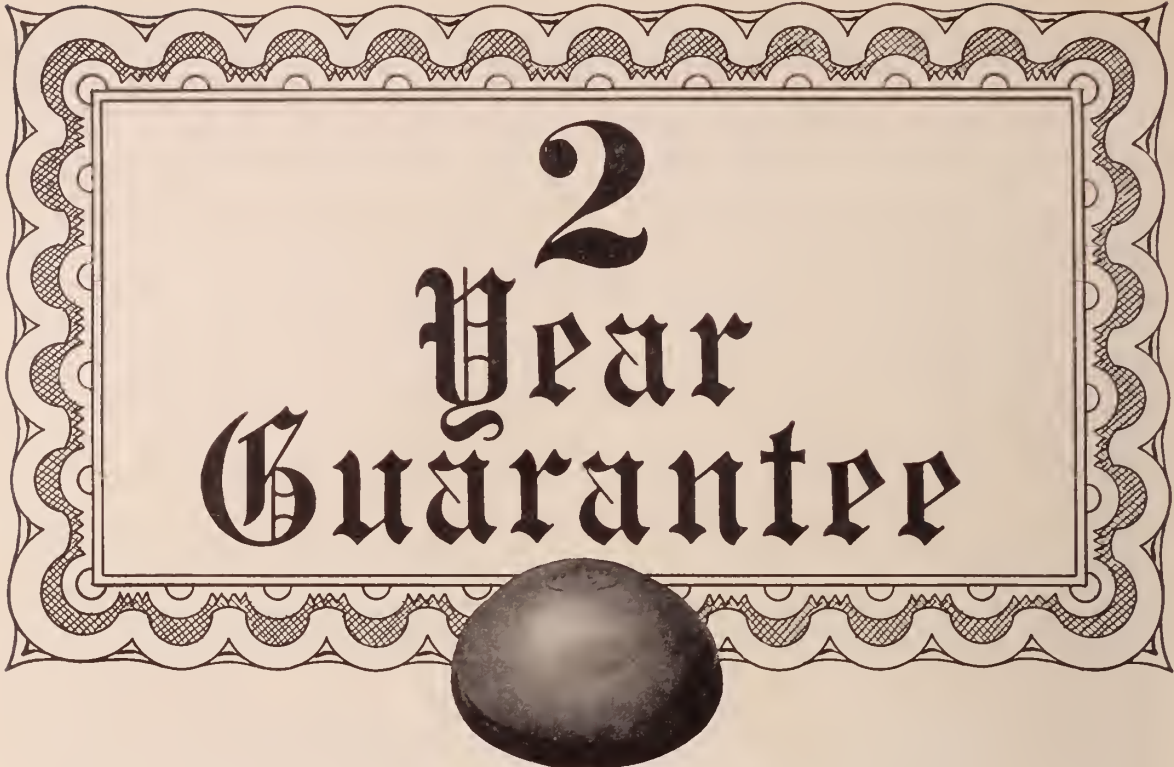
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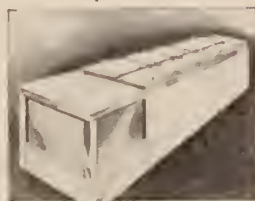
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## AN EVALUATION OF THE TREATMENT OF CRYPTORCHIDISM

Palmer R. Kundert, M. D.

and

Louis M. Orr, M. D.

Orlando

Although cryptorchidism has been recognized since the time of Galen, its etiology and treatment remain controversial matters. Most workers today believe an undescended testicle is incapable of forming spermatozoa because of its location, and treatment is carried out with this conclusion uppermost in mind. Occasionally such complicating factors as pain, torsion, associated hernia, danger of malignancy and perhaps a desirable psychic effect may be of primary importance.

There is adequate experimental evidence to prove that normal testicular function depends upon the location of the testes, but clinical proof is meager since most surgeons have judged their end-results by the cosmetic effect rather than on the basis of fertility. A clinical study on this basis was made by MacCollum. His investigation revealed fertility in 82 per cent of bilateral cryptorchids operated upon as contrasted to the 10 per cent established as fertile without interference.

The causes of arrested descent are probably multiple. Among those mentioned in the literature are heredity, short vas deferens, peritoneal adhesions, short mesorchium or cremaster, an associated hernia, hypoplastic spermatic arteries, endocrine imbalance, small inguinal rings, and abnormal attachment of the gubernaculum. The cause of degeneration of the testicle upon its removal from the scrotum was discovered by Moore and his co-workers. They showed that the scrotum exerts its beneficial influence on the testis by maintaining a constant temperature.

Treatment should, therefore, be designed to return the testicle to its normal position in the scrotum. It may be considered under four divisions: (1) Non-interference, (2) Endocrine Therapy, (3) Surgery and (4) Surgery plus endocrine therapy.

The exponent of non-interference is Drake, who contends that when cryptorchids reach the age of fourteen, practically all undescended testicles will descend spontaneously. The two main arguments against this contention are (1) that in adults the incidence of cryptorchidism is 3.1 per 1000 and (2) that the incidence of this condition, as stated by Drake, is twenty times the normally accepted figure. It is believed that this discrepancy is due to the inclusion of cases of migratory testes, a condition sometimes called physiologic ectopy or false cryptorchidism. Since inclusion of these cases has also distorted the statistics in endocrine therapy, it is perhaps wise to describe the condition further. According to Rea, physiologic ectopy describes a normally descended testis with a very short or active cremasteric muscle, which pulls the gonad into a high scrotal or inguinal position. Such a testicle may have one or more of the following characteristics: (1) It withdraws from the scrotum upon the application of heat. (2) It may have once been in the scrotum. (3) It can be brought into the scrotum manually. (4) It has an associated hernia less frequently. (5) It is enclosed by a better developed scrotum.

During the past decade much has been written about the treatment of cryptorchidism with gonadotropic hormone. The original experimental and clinical investigations were made by Engle and Schapiro respectively. Most of the earlier reports were uniformly favorable. The more recent ones, however, reveal a decreasing percentage of success. It is believed that this change is at least partly due to the inclusion of many cases of physiologic ectopy during the early stages of the investigation of this therapy. Such cases can account for those in which the testes were reported as descending completely in a few hours.

Elimination of this group leaves a small number of true cryptorchids whose testicles descend satisfactorily following the administration of gonadotropic hormone. The mechanism whereby the descent is accomplished was investigated by Deming. He found experimentally that the inguinal canal, vas deferens and cremaster enlarge two or three times;



there is increased development of the scrotum and dartos; the caliber of the cord vessels increases; increased vascularity and thickening of the loose areolar tissue occur, and the testicle enlarges and moves more freely. All of this activity results in the migration of the testicle to the scrotum if there are no mechanical or anatomic defects. It should be remembered, however, that in addition to the change in testicular position several undesirable side-effects have been observed following the use of anterior pituitary-like substances. Thus Aberle and Jenkins reported genital hypertrophy which, in one monkey, doubled the size of the testes, prostate and penis. Histologically, the testes of all the animals in their experimental study, showed an increase in the diameter of the tubules and a corresponding increase in the interstitium. Two of their patients showed pronounced reactions characterized by elevation of temperature, fretfulness and gastrointestinal upsets; the genitalia of one became greatly hypertrophied. Geschickter, Lewis and Hartman reported a degree of prostatic hypertrophy following hormone injections sufficient to cause urethral obstruction. An excellent recent communication by Thompson, et al., re-emphasizes the maturing influence which these injections have, making one wonder whether it is wise to stimulate young males sexually before the normal age of puberty, especially when surgery can accomplish the same results.

The third form of treatment, surgery, may be divided into three categories: (1) Reposition, (2) Removal, and (3) Orchidopexy. Reposition is very seldom used due to the fear of malignancy. Placed in the abdomen, the testicle can no longer be observed easily; it is therefore better to remove it if it cannot be placed in the scrotum. MacCollum advised delaying removal until the fifteenth or sixteenth year so that the development of the secondary sex characteristics will not be interfered with. Routine orchidectomy was advised by Szmankowski, whose judgment was influenced by the fact that he was hopelessly afflicted by a teratoma arising in an undescended testicle. Today, castration is reserved only for atrophic or malignant testicles and those which cannot be properly placed in the scrotum.

According to Wangenstein, the modern operation of orchidopexy began with Schüller

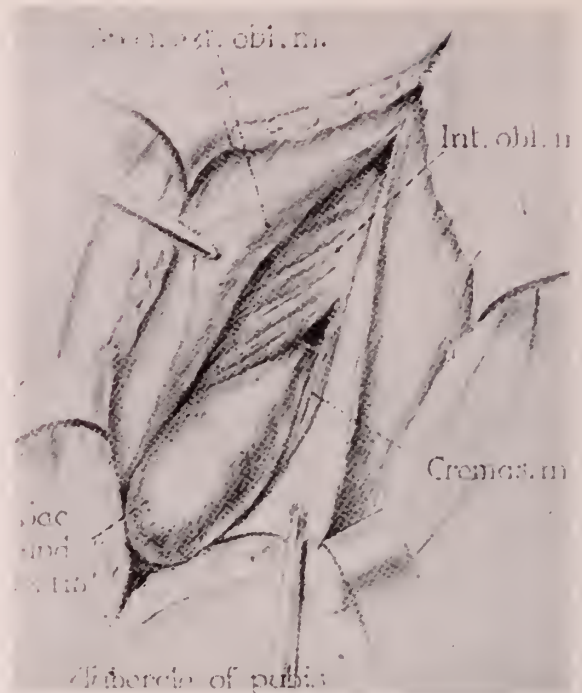


Figure 1

in 1881. Since that time various technics have been devised. In a recent paper by Wolfson and Turkeltaub, the authors estimated that forty different types of orchidopexy have been described. Most of them, however, represent but minor modifications of the Bevan and Torek operations. Bevan's technic is based on



Figure 2

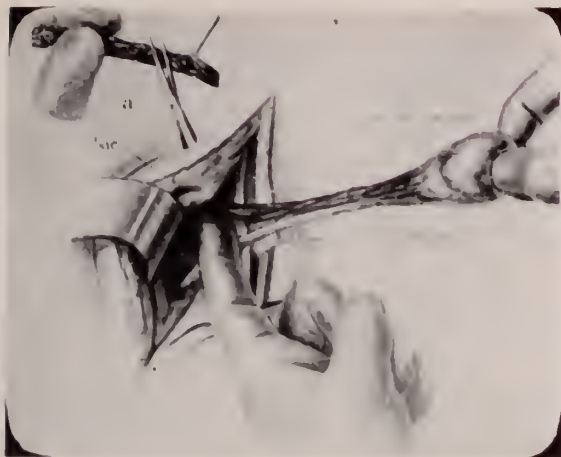


Figure 3



Figure 4



Figure 5

the theory that with perseverance, the cord can be lengthened sufficiently to place the testicle low in the scrotum. It consists of freeing the vessels and vas deferens into the abdominal cavity, of dividing the cremasteric fibers, of separating the fascial coverings of the cord, and of freeing the peritoneum and repairing the hernia. At first Bevan also severed the vessels of the pampiniform plexus in 10 per cent of his cases, but later gave up this practice because of the atrophy that followed. This technic, as pointed out by Wangenstein, is unsatisfactory in that the testicle often retracts postoperatively. Cognizant of this objection, Bevan advocated a purse-string suture placed at the scrotal neck to prevent retraction beyond that point. It has been learned, however, that the top of the scrotum is not the most desirable location, and therefore the Torek technic, whereby the testicle is fixed to the thigh for from three to six months, has been adopted by many surgeons. In a recent report, Walters stated that the Torek method is used at the Mayo Clinic with good results in 92 per cent of the cases thus treated. Burdick and Coley, reporting on 137 cases treated by this method, stated that the end-results were so far superior to those obtained by former methods that they do not feel justified in using any other type of operation.

The exact age for orchidopexy is much disputed, but in view of the degeneration occurring in an undescended testicle after puberty most writers agree that it should occur before that time. There is, of course, wide diversity of opinion as to the exact age of puberty, but because Moore's studies showed that spermatogenic tissue may begin to develop as early as the ninth year, that age is usually given as the upper limit. There is even more argument as to the lower limit. Eisendrath and Mixer believe that the operation should be performed early, and Brocha goes so far as to advocate surgery as soon as the child develops voluntary control of micturition. However, because of the occasional occurrence of late descent, Wangenstein feels orchidopexy may well be delayed until the ninth or tenth year. According to Ada, patients up to twenty years of age, who present themselves too late, should not be denied surgery as a fair measure of regeneration of the testes may occur. Pace goes even

further, having been led to believe from his studies that partial regeneration may occur as late as the fourth or fifth decade.

During the past several years the medical and surgical treatments have often been combined except in those cases having obvious complicating factors needing immediate surgery. Organotherapy may serve as an important adjunct to surgery, both preoperatively and postoperatively by making surgery less

centage of cases in which the patients can be treated successfully with organotherapy alone, many workers believe that surgery should be deferred until such therapy has been given a trial, especially if the Hess test is positive. Agreement among these workers ends, however, when the trial dosage of endocrine therapy is considered.

Deming suggests that this treatment be started when the patients are between the ages of two and three. He gives such children from 40 to 100 rat units on alternate days for one month. If the testis does not descend, he repeats the treatment in two months. If the second series is unsuccessful, further endocrine therapy, he feels, will probably be ineffective. He believes that the descent of the testes in males past puberty probably cannot be expected to result from endocrine therapy. Lawrence and Harrison feel that success with hormone treatment depends more on the intensity than the total amount of this therapy. They give at least 600 rat units weekly and as much as from 1000 to 2000 to the more resistant individuals. Counseller goes even further, giving 4000 rat units of antuitrin S daily five days a week for four weeks. If this therapy produces no result, he advises surgery. Rea suggests treatment for from three to six months, and Thompson for from four to six, before decision is made as to its adequacy.

Because of these divergent opinions no definite dosage or period of treatment can be prescribed. In fact, it would seem prudent to dispense with the use of so potent a sexual stimulant, except in cases of hypogenitalism, until it has been proved that there is no permanent derangement of the sexual mechanism. If hormonal treatment is administered, it should only be given in small doses and over a short period of time. Each patient must be treated and observed individually. The indiscriminate use of such therapy should be condemned as serious sexual changes may result whereas proper surgical treatment at the optimum time will provide the desired result without such hazards.

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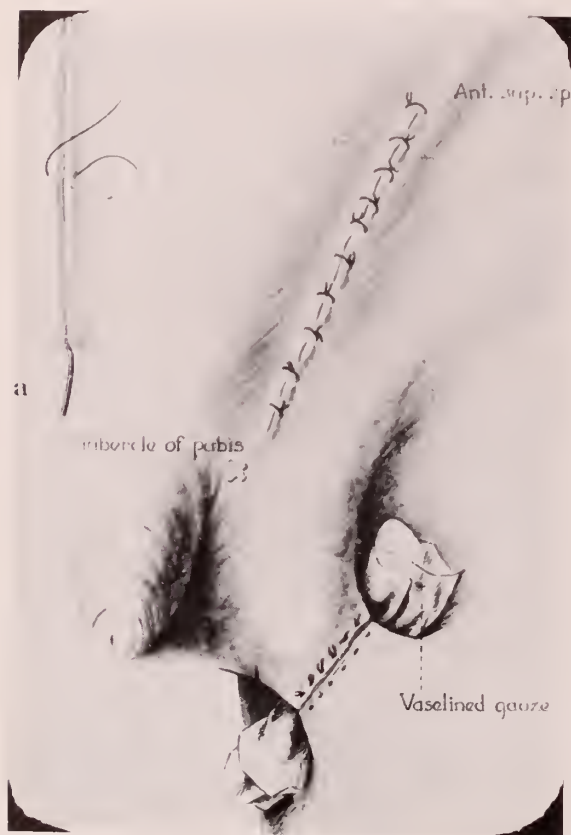


Figure 6

difficult. It is especially effective in cases of hypogenitalism. Patients with this condition usually have both testes undescended, small genitalia, and female distribution of fat and hair. The obvious Fröhlich syndrome is of course easy to recognize. To identify the milder types of hypogenitalism, it may be necessary to examine the urine for gonadotropic hormone. This test is based on the work of Hess, Kunstadter and Saphir, who demonstrated that the presence of this substance in the urine indicates the anterior lobe of the pituitary is functioning and the testicles are not.

Because there is a definite though small per-



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## DISCUSSION

*Dr. Roy J. Holmes, Miami:*

There is very little to be added to Dr. Kundert's excellent presentation except possibly to re-emphasize some of the valuable points that he has already brought out.

We feel that the value of the anterior pituitary lobe principle has perhaps been largely exaggerated. Some of the more enthusiastic men have reported descent of the testicle within a few hours after the first dose of this hormone was given. It might be well to call attention to the fact that the testicle can descend or can change its position remarkably within a few hours even though no anterior pituitary lobe principle is given nor any other therapy instituted. There is too much danger of mistaking many of our most spectacular results for cases of pseudo-cryptorchidism or migratory testicle in which the testes can assume normal position at puberty without any therapy whatever. Now, it is possible, and even probable that the anterior pituitary lobe principle causes descent only in those testicles which would descend without treatment at puberty. At least, if we exclude these cases of migratory testicles, which are not undescended testicles by any means, the results will immediately drop from 60 per cent to possibly not more than 20 per cent.

These cases of migratory testicles are the ones about which the mothers tell us that sometimes the testicle is almost down in the scrotum in its normal position and at other times it cannot be felt at all. Almost without exception, when the patient comes into the doctor's office, the testicle cannot be felt, or if felt at all, is very high in the canal. The reason is that the child is frightened. The very presence of a doctor frightens a child, and, therefore, there is some restriction of the testicle. Sometimes it is very difficult to determine the degree of testicular descent. For instance, one child was observed for several days in our office, and we were unable to detect the testicle by palpation. Yet the mother insisted that at times it came down into the scrotum. One night about nine o'clock, while the child was sleeping, I was able to make an excellent examination, which revealed that the testicle was much lower than I had thought.

In regard to the operation for undescended testicle, Dr. Kundert has already pointed out that about forty different operations have been devised for this condition. I think, however, that Dr. McKinnon has given us a very valuable method in that when he exposes the cord, with the peritoneal sac around the cord, he introduces a dilator under the sac and on top of the cord and cuts the peritoneal sac transversely or at right angles with the cord. He then pulls this whole sac outward and downward as far as possible.

Our experience consists of operating in two of these cases. I believe the surgical procedure considerably lengthens the cord.

Dr. McKinnon was the first to suggest the use of a suture to anchor the testicle to the thigh.

I have enjoyed this paper very much, and I think that Dr. Kundert is to be congratulated on such an excellent presentation.

*Dr. E. S. Gilmer, Tampa:*

The normal embryologic development and descent of the testicle are complex, and many theories have been advanced in attempts to explain them. Hinman stated that the descent of the testicle as far as the brim of the pelvis is relative, caused by the development of the spinal column and the abdominal organs giving the appearance that the kidneys ascend and the testicles descend although there is no actual descent. Recent investigation would certainly indicate that the hormones play an influential part in bringing about this descent. It seems reasonable because of the influence that the hormones have been shown to have over cryptorchidism.

Of the many causes suggested for cryptorchidism, deficiency of the hormones and mechanical interference stand out most prominently. Mechanically, several conditions have been mentioned. I do not attach much importance to adhesions which are said to be brought about by fetal peritonitis, a conclusion that seems very

far fetched. The conjoined tendon seems to act as a sphincter in cases where descent has taken place in utero, preventing the retrogression of the testicle; but in those cases characterized by poor congenital development of the muscles of the inguinal canal and of the conjoined tendon with a strong cremasteric muscle, the testicle may be forced back into the canal when this muscle contracts. This occurrence may explain some failures following treatment.

Dr. Kundert's paper is very timely in view of the present trend toward endocrine therapy in that he calls our attention to the fact that many cases diagnosed as cryptorchidism are not true cases of this condition for the testes would descend spontaneously regardless of treatment. He also warns us against indiscriminate and unguarded use of the anterior pituitary lobe substance without due regard to side effects in the nature of hypergenitalism. We should determine, if possible, the exact cause of the maldescent of the testicle and proceed with caution and conservatism with either surgery or hormone treatment since, without doubt, most of these cases will go on to spontaneous cure by the age of puberty in normal persons, without interference, as a result of the natural hormonal stimulation at this time. I think we should be very careful in administering the anterior pituitary lobe substance except in cases of hypogenitalism or those that show a deficiency of hormones.

I believe with Dr. Kundert that, until we know more about results in hormonal treatment, surgery is a safer procedure, but I do not recommend any interference until we are reasonably convinced that normal descent will not take place.

Most surgeons agree that the Torek operation offers the greatest opportunity for permanent results. Foster's modification of this operation seems even more attractive since there is no mutilation of the testicle and no danger of injury to the internal saphenous vein, which lies just beneath the usual point of suture to the fascialata after freeing the testicle. Foster makes an incision three-fourths of an inch long and then places cat-gut stitches along the margin of this incision, leaving the suture loose until the testicle is placed beneath it; then the suture is pulled tightly holding the testis firmly in place and leaving the upper end of the incision sufficiently free, so as not to compress the cord. The lower lip of the fascial incision is then sutured to the outer lip of the scrotal incision. The feet are then bound together for about eight days, thereafter the patient is allowed to be up and about. After two or three months the scrotum is released from the thigh, the fascial incision is reopened, and the testis is allowed to slip back into the scrotum.

Many questions are still unanswered about the management of cryptorchidism and, until these questions are answered, we cannot truly evaluate the treatment.

## THE ROLE OF ROENTGEN THERAPY IN NONMALIGNANT DISEASE

Alfred G. Levin, M. D.

Miami

The therapeutic value of roentgen rays in inflammatory processes was first observed shortly after Roentgen announced his momentous discovery in 1895. Since then many new and useful applications of these rays have been introduced, the most substantial contributions having been advanced during the last decade. The results in a number of nonmalignant diseases have been nothing short of dramatic, a fact that has created doubt and skepticism in some quarters. There is no occasion for either doubt or skepticism, as authentic and convincing data<sup>1, 2, 3</sup> concerning the therapeutic effects of roentgen rays are now available from many of the larger medical centers. In the brief period for this presentation, only a few of the more important applications of roentgen therapy in nonmalignant diseases will be considered.

### SKIN AND ITS APPENDAGES

While roentgen therapy of diseases of the skin more aptly belongs in the field of the dermatologist, the radiologist is frequently called upon to treat furunculosis, carbuncles and cellulitis.<sup>4, 5, 6</sup> Incipient furuncles may be aborted with a single roentgen treatment, and the course of advanced cases of furunculosis may be materially shortened, with prompt alleviation of pain and reduction of constitutional effects. The speed with which the process can be controlled is of considerable economic importance. A case in point is that of C. J., a hotel employee aged 32, seen January 15, 1940, who was unable to work because of a very painful and rapidly progressing boil on the back of the neck. In thirty-six hours after treatment with two small doses of roentgen radiation, he returned to his desk. All pain had disappeared; the furuncle had become localized and had pointed so that a relatively small incision was adequate for satisfactory drainage. I have treated many such cases with similarly prompt results. While other methods are also effective in bringing about a cure, it is doubtful whether it is produced as rapidly as with radiation.

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THE  
SCIENTIFIC PROGRAM  
FOR THE  
Annual Convention  
TO BE HELD IN JACKSONVILLE  
April 28, 29, 30  
WILL APPEAR IN THE  
APRIL JOURNAL



The much feared furuncles on the upper lip and nose likewise yield to roentgen radiation. When applied early, it almost invariably prevents the disease from assuming a dangerous form. At times hospitalization is avoided as in the case of M. O., a farmer aged 44, suffering from an extensive carbuncle of the neck with severe toxemia and pain so intense as to be entirely unaffected by large doses of opiates. The attending physician felt certain that this patient's life would be in jeopardy if he was not hospitalized at once, but the patient refused hospitalization. A series of moderate doses of roentgen radiation was given, and in less than forty-eight hours the pain was almost entirely relieved. The patient was much improved generally, and his previously spiked temperature curve was rapidly leveling off.

Even deeply ulcerated carbuncles which resist all of the usual methods of treatment may be benefited. An example is the case of G. H. P., a civil engineer aged 51, who was seen at the Jackson Memorial Hospital, July 6, 1939. He gave a history of an uncontrollable, spreading carbuncle of the interscapular area, which had originated two weeks previously. At the time roentgen therapy was begun, the patient was running a spiked temperature ranging from 99 to 102 F. and appeared toxic. There was excruciating pain requiring very heavy sedation. The lesion measured approximately 11 cm. in diameter and was completely broken down with deep excavation exposing the fascia. The floor was covered by slough, and there was a large zone of peripheral induration. Surgical drainage, hot soaks and other treatment were entirely ineffective. Roentgen therapy brought partial relief of pain almost immediately, and reduction of the peripheral induration soon followed. The crater, however, showed little change until more than a week had passed, when granulation tissue of healthy appearance began to fill in from the borders. The large excavation, which we had felt would require many months to fill in, if filled at all, was almost completely closed over after about eight weeks. Shortly thereafter the patient returned to work. This was one of the most severe cases I ever saw or heard described, and, in my opinion, without the use of roentgen radiation the final outcome might have been entirely different.

Localized erysipelas<sup>3</sup> and erysipelas-like cellulitis<sup>7</sup> are also indications for roentgen therapy. E. B., an attorney, suffered from an acute "erysipeloid" cellulitis of the nose and ear, which, because of its appearance and the extreme pain, threatened to interfere seriously with his work in court. In twenty-four hours after two applications of low voltage radiation, the condition had improved so much that there was no interference with his routine. A similar case was that of E. C. C., a veterinarian, unable to carry on his work at the height of the winter season because of a diffuse cellulitis of the nose apparently arising from infection of hair follicles. In addition to the excruciating pain, which in itself caused the patient to be confined to his bed, there was beginning evidence of generalized sepsis. He was treated at home with portable x-ray apparatus, and in less than forty-eight hours was back at work.

Other dermal and subcutaneous conditions in which roentgen radiation is particularly useful are gas bacillus infections,<sup>8, 9</sup> in which roentgen rays are almost specific, parotitis,<sup>10</sup> chronic paronychia,<sup>11</sup> cutaneous actinomycosis,<sup>12</sup> blastomycosis<sup>5</sup> and tuberculosis,<sup>13</sup> localized pruritis or bromidrosis,<sup>14</sup> infected angioma or granuloma,<sup>5</sup> keloid,<sup>15</sup> sarcoid<sup>14</sup> and rhinophyma.<sup>5</sup> Time does not permit more than mention of these diseases, but the literature is replete with favorable reports of their treatment by this method.

#### RESPIRATORY SYSTEM

Roentgen therapy is being used successfully in many types of infection of the sinuses,<sup>16, 17, 18</sup> particularly the chronic hyperplastic variety. It may be applied effectively in conjunction with orthodox rhinologic measures and therefore should be regarded as an adjuvant rather than a competitive method. In fact, the effects of conservative medical therapy are often much enhanced by the addition of this treatment. We have observed this added improvement especially in physicians and members of their families, who frequently desire to submit to more recent therapeutic suggestions.

In some chronic forms of sinusitis, radical surgery has been avoided by the judicious application of roentgen radiation. Hodges<sup>19</sup> and other observers throughout the country have reported thousands of cases with relatively small percentage of failures. While acute sinu-



sitis may also be benefited, treatment should not be instituted until drainage is well established. Similar successes are obtainable in acute otitis media<sup>20</sup> and in early mastoid infections.<sup>21</sup> Adenoid tissue<sup>22</sup> and similar lymphoid deposits on the pharyngeal wall are highly sensitive to radiation and are effectively shrunk with reduction of the usual pharyngeal and respiratory complaints. Hypertrophic tonsillitis<sup>23</sup> in which surgery for some reason is contraindicated is also amenable to this form of treatment.

In the chest the scope of roentgen therapy is rapidly widening. It has been observed that pneumonia of various types shows rapid improvement following its use. Powell<sup>24, 25</sup> and various other workers<sup>26, 27</sup> reported large series of cases with a very appreciable reduction in mortality. Much of this work is being done with a newly devised type of bedside x-ray unit which is capable of delivering an intermediate type of radiation up to 135 kilovolts. Many patients with idiopathic asthma,<sup>28, 29</sup> bronchiectasis<sup>30</sup> and chronic bronchitis have been relieved of symptoms and much benefited. Care in the selection of cases is extremely important. Of particular interest are the cases of chronic cough in young children,<sup>31</sup> in which there is frequently very gratifying response. L. W., a child aged 3 years, was brought from Chicago to the warmth of Florida because of a persistent cough following a pharyngeal infection which had cleared up. The child's severe coughing spells nevertheless continued unabated for three months. Finally roentgen radiation was given over the chest, and in less than a week after a short course of intermediate voltage treatments was completed, the cough disappeared and has not recurred.

#### GASTROINTESTINAL SYSTEM

There are relatively few indications for roentgen therapy in the gastrointestinal tract, but it is interesting to note that in a group of one hundred patients with peptic ulcer treated by Palmer and Templeton<sup>32</sup> at the University of Chicago, depression of gastric secretion was obtained in every case with an average diminution of free acidity from 130 to 30 units. It is not yet known how long the depression will continue, but if the method proves successful in helping to maintain a low acid concentration, it may prove to be of adjuvant value in the therapy of gastric ulcer. For some time roent-

gen radiation has been used very successfully in the treatment of tuberculous peritonitis,<sup>33</sup> and more recently has proved strikingly beneficial in various types of postoperative peritonitis.<sup>34</sup> Pilonidal cysts with sinus formation<sup>35</sup> and refractory anal fistulas<sup>36</sup> have also been reported as being favorably influenced by it.

#### GENERATIVE AND URINARY SYSTEMS

In gynecologic problems roentgen therapy finds one of its broadest fields of usefulness. Many ordinarily intractable menstrual and menopausal difficulties have shown remarkable response to radiation delivered over the ovaries or the pituitary or both. Mazer and Baer<sup>37</sup> treated 460 cases of menstrual abnormality with excellent results and reported temporarily adverse effects in only 7 out of this large group. Of 106 cases of amenorrhea, normal menstrual function was restored in 59 per cent. A still higher percentage of cures was obtained in cases of dysfunctional metrorrhagia and menorrhagia. Other authors<sup>37, 38</sup> report correction of sterility in about 55 per cent of cases. The best results are obtained when sterility is associated with deficient menstruation. While the successful results in these cases have not been explained, they are very likely due to correction of endocrine imbalance. Since in most cases it is impossible to determine whether the ovary or the pituitary is primarily at fault, it is the present tendency to apply only small doses of radiation to both of these glands.

One of the most striking cases I have recently seen was that of Mrs. J. M. F., a housewife aged 36, who had been suffering from intractable migraine, which usually began on the last day of menstruation, was absolutely uncontrollable by ordinary medical methods and was diminished only slightly by operative procedures including a uterine suspension and partial oophorectomy. Large doses of narcotics were ineffective, and during one attack relief was not obtained until pure oxygen was administered. Radiation in this case was applied to both the ovaries and the pituitary, sufficiently large doses being applied to the ovaries to produce castration. The headaches diminished in intensity for a period of several months, and since menstruation has been stopped, they have disappeared completely. A menopausal problem of another type was the case of Mrs. H. W., a physician's wife aged 60, who had passed

through a prolonged and delayed menopause and was suffering acutely from frequent unprovoked attacks of excessive sweating. In this case radiation was applied to the pituitary alone. The hyperhidrosis disappeared almost completely after a short course of treatments.

Every case of postmenopausal bleeding, and most cases of intermenstrual bleeding demand careful investigation, including diagnostic curettage to exclude malignancy, before treatment is instituted. Intramural uterine fibroids<sup>39, 40</sup> of moderate size are satisfactorily treated, with control of bleeding and appreciable shrinkage of the tumor mass, but here again cases must be selected with care. Good results in genital tuberculosis were reported by Lenz and Corscaden.<sup>41</sup> Sterilization by radiation<sup>42</sup> instead of surgery is being employed more and more extensively, with obvious advantages. Menopause brought about by radiation is in some cases shorter in its course and therefore easier on the patient than the natural menopausal period.

#### NERVOUS SYSTEM

In the field of neurology the analgesic effect of roentgen therapy has been particularly valuable in the management of neuritis and neuralgia. Hundreds of cases have been reported in the literature.<sup>43, 44</sup> Particularly good results have been observed in true sciatica and in cervicobrachial neuralgia.<sup>45</sup> J. N., an insurance salesman aged 48, with classic severe sciatica, had failed to respond to all the usual methods of treatment. He was brought into the office leaning heavily on a cane and supported on either side. He was treated with much difficulty because of his inability to lie quietly on the treatment couch. As occurs not infrequently, there was an exacerbation of pain that same evening; but the next morning all symptoms had disappeared, and no further therapy was necessary. We have recently followed 4 other cases of true sciatica completely relieved of symptoms by roentgen treatment. It must be remembered, however, that as in other forms of therapy, a certain number of failures is to be expected. They occur especially in those cases which falsely resemble sciatica. Other neurologic conditions in which beneficial results have been obtained include some forms of epilepsy,<sup>46, 47</sup> syringomyelia,<sup>48</sup> coxarthria,<sup>49</sup> hemiplegia,<sup>50</sup> acromegaly<sup>51</sup> and herpes zoster,

but more conclusive evidence is necessary to establish a rationale in these states.

#### SKELETAL SYSTEM

Many forms of arthritis have been treated with benefit, but the most dramatic results have been observed in the infectious types of gonorrheal etiology.<sup>52</sup> Hypertrophic and rheumatoid arthritis<sup>53, 54</sup> respond less dramatically, but the associated pain may be diminished. Excellent results are reported in acute para-arthritis,<sup>55</sup> especially cases of fibrositis and bursitis. Many hundreds of cases of bursitis about the shoulder<sup>56</sup> with and without calcification (so-called peritendinitis calcarea) have been favorably influenced. In my most recent case the patient was H. K., a salesman aged 41, who was almost completely incapacitated by a painful right shoulder, in which calcium deposition was demonstrated roentgenologically in the region of the subdeltoid bursa. In less than one week after a short course of high voltage roentgen ray treatments was given, symptoms had almost completely disappeared.

#### ENDOCRINE SYSTEM

It is generally conceded that the surface of endocrinology has merely been scratched, but from present indications it appears likely that roentgen therapy plays an important role in this field. The value of radiation applied to the pituitary in gynecologic problems has already been mentioned. It has been established that the vasomotor disturbances which often follow the menopause may be relieved in a large percentage of cases by small doses of roentgen rays over the pituitary.<sup>57</sup> Radiation applied to the pituitary has also proved beneficial in some cases of insulin resistant diabetes,<sup>58</sup> acromegaly<sup>51</sup> and obesity, particularly the type characterizing Fröhlich's syndrome. Roentgen therapy has long been established as the treatment of choice in hypertrophy of the thymus.

The value of roentgen radiation in hyperthyroidism has been known since Pfahler and Thrush,<sup>59</sup> in 1906, reported their observations on a group of patients with exophthalmic goiter. In the thirty-five years that have since elapsed, Pfahler has treated several hundred cases. In his most recent article,<sup>60</sup> published in January 1940, he concluded that the end results of roentgen therapy in hyperthyroidism are approximately equal to those obtained by surgery. This therapy has the obvious advantage of pro-



ducing no shock or other undesirable effects of significance. Its use should not be neglected, particularly in cases where operation is refused or for some reason contraindicated. Radiation in postoperative recurrences has also proved highly advantageous.

We frequently hear the claim that the application of roentgen rays causes subsequent surgery to be difficult. Crile and Leahy, however, found preoperative radiation no complication in cases of thyroidectomy. It is possible that unnecessarily prolonged and heavy radiation produces some ultimate fibrosis, but most radiation therapists agree that if moderate doses of roentgen rays have not produced the desired effect in four months, other treatment should be employed without delay.

#### CONCLUSIONS

Roentgen therapy, while empiric in some instances, affords the practitioner an added weapon with which to combat many intractable conditions. It is no panacea and should not be employed if and when simpler procedures will ensure equally satisfactory end results. The older belief that only neoplastic disease is amenable to radiation must be revised, since recent advances have greatly widened its scope of usefulness in nonmalignant conditions. In every instance cooperative management is most desirable. The combined efforts of the attending practitioner and the radiologist are most conducive to success. It is thoroughly appreciated that roentgen therapy may be abused, but when treatment has been administered by competently trained specialists in radiology, harmful effects have not been observed in properly selected cases.

#### SUMMARY

1. Substantial contributions to the value of roentgen therapy have been made during the last decade.

2. Treatment of pyogenic and streptococcal infections of the skin has yielded dramatic results.

3. Many other disorders of the skin have likewise responded to radiation.

4. Certain forms of nasal sinusitis and other respiratory infections have yielded to the adjuvant employment of roentgen treatment.

5. The potentialities of the influence of roentgen radiation on the gastric secretion are now being studied.

6. In the field of gynecology outstanding effects of radiation have been experienced.

7. The analgesic effect of roentgen therapy in the management of neuritis and the neuralgias is especially noteworthy.

8. Arthritides and related processes are often amenable to this therapy.

9. Evaluation of the effects of roentgen radiation in endocrine disturbances may eventually establish a wider application of this physical agent.

10. In diseases of the thyroid and thymus the scope of usefulness of roentgen treatment is well established.

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522 duPont Bldg.

## DISCUSSION

*Dr. Walter C. Jones, Miami:*

If you will permit the Chair to say one word on this subject, I think that Dr. Levin has brought to our attention a most valuable agent for the treatment of the acute inflammatory conditions of which he spoke in the early part of his paper. It is of particular importance in relation to infection in and about the upper lip and nose, a condition in which we have had so little help from a surgical standpoint, and in which the mortality rate so frequently is out of proportion to what we should like to see. The roentgen ray is of definite value in the management of these inflammatory conditions.

Under the surgical group, the treatment of carbuncles is of particular interest. For a good many years we have discontinued the cauterization or extensive incision of carbuncles. We immediately refer these cases for roentgen ray therapy, and it is remarkable to watch the extensive amount of inflammatory exudate in the tissues gradually subside until a focal point of necrosis is produced in which it is possible to cut a small opening and eradicate these severe conditions that we see about the neck and thigh.

I think that Dr. Levin has brought to our attention a most valuable adjunct in the treatment of a number of diseases.

*Dr. H. B. McEuen, Jacksonville:*

I wish to compliment Dr. Levin upon the excellent presentation of his subject. Listening to this paper, one might be tempted to think of a "jack of all trades," for roentgen therapy certainly enters practically all fields of medicine. However, it does not as a rule fall down on any of the treatments when they are properly indicated. I think for this reason alone Ripley should be paged, as "believe it or not," all Dr. Levin has said about roentgen therapy in these various types of cases is true. I think that the doctor has been rather modest in most of his statements.

I have found that practically all infectious or inflammatory processes, whether boil, carbuncle, tenosynovitis, cancrum oris or the so-called strep throat, of which we have heard so much in the last three or four years, will respond to proper dosage of roentgen rays. I urge you in these cases not to wait until all other methods of treatment have been tried and then use roentgen rays as a last resort, but instead to modify your plan of treatment and see how this therapy will help you in the treatment of these various inflammatory processes. I might add a word of caution here as I think it timely; an x-ray machine alone is no more sufficient than is a scalpel for either has to be in proficient hands to perform good work.

I note that Dr. Levin has limited the size of uterine fibromyomas suitable for roentgen therapy. With this statement I disagree as I have successfully treated a number of these growths in cases in which the tumor mass extended well above the umbilicus. In one case of fibrosarcoma the mass was the size of the uterus at full term pregnancy and was completely inoperable, as proved by an exploratory operation. It nevertheless responded to roentgen therapy, and the patient lived for over fifteen years without a recurrence. The larger the fibromyoma the longer the time required to reduce it, but as yet I have failed to find one which would not respond.

### THE DEVITALIZED TOOTH: A FACTOR IN OPHTHALMOLOGY

BASCOM H. PALMER, M. D.  
Miami

It is with no common pleasure that I acknowledge the distinction of appearing on this program today. I shall not dwell in platitudes upon the moment of the occasion, but in this meeting I see what I most desire to see: a vigorous and inspired support of the noble traditions of our specialty in medicine, for thereby only can we combat the spectre of uncertain fears which becloud our horizon. In our ambition to retain the high standard of morals, of ethics, and of education, we are confronted with a large work whose parts must be performed with facility and each of us must accept our share of time and labor in the building of an enduring edifice which will typify a profession that seeks to preserve its ideals from mutability.

It would be my desire to bring to you some scientific offering, presented with the talent of a writer and delivered with an oratorical scintillation worthy of this notable occasion, but the eloquence of the forum is oftentimes a gift withheld from the busy physician as he labors over the caldron of human disease or practices the arts of surgery with finite precision. Fortunately, however, we make allowance for this lack of graceful versatility in our confreres, and recognize that the chief advantage in these

gatherings lies in a mutual interchange of opinions and experiences.

The subject I have chosen today, "The Devitalized Tooth: A Factor in Ophthalmology," is so broad and so controversial that I shall make no effort to touch the compass of it; it is not my intention here to be either profuse or profound, but I shall try only to bring before you those facts which press themselves on me every day more deeply, as I observe them in my practice. In selecting the definite observations noted herein I have, indeed, been a most cautious purveyor of facts as I interpret them.

First, let me say, for emphasis, the thing we all know: Favorable climatic and geographic endowments bring to Miami increasing multitudes of people in varied conditions of health or sickness, thus making the practice of medicine there as wide in scope as any yet encountered by other localities in our country. The observations that I have made, therefore, are not confined to any single or isolated group but are drawn from an almost limitless variety of cases over a period of time.

It is well understood and accepted as a truth, that proved dental sepsis is responsible for much ill health in all parts of the body. The epochal work of Rosenow, confirmed by observations of many other investigators, would, in my mind, seem to leave no room for doubt in those cases where bacteria can be cultured from a lesion, and many are the diseases attributable to focal infections—oral sepsis being unquestionably one of the commonest sites for their genesis.

Who among us has not observed the red throat and pharynx and ulcerations of the epiglottis quickly cured by the elimination of an old pyorrhea and the removal of carious teeth? Acute tonsillitis, peritonsillar abscesses, acute and chronic cervical adenitis, Ludwig's angina, retropharyngeal abscesses, acute parotitis, acute, subacute and chronic laryngitis—all of these might well be included in the category of almost endless ills resulting from, or aggravated by, dental sepsis.

Nor do the nose and paranasal sinuses remain aloof from the ravages of infected teeth. We all know that the sinus most frequently observed to harbor infection is the maxillary antrum, but my observations have proved to me that many cases of pan-



sinusitis are also traceable to a continuity of surface from a maxillary empyema. Once the maxillary sinus becomes infected the ethmoid, sphenoid and frontal sinuses may show involvement either as the direct result of infection passing into the nose through the normal ostium and then into the several other sinuses by consecution of tissue, or by the less common but yet frequently observed anomaly in which there exists direct passageways from the maxillary into the ethmoid, sphenoid and frontal recesses, whereby all of these sinuses may be connected and grouped more or less as a unit. I am confident, too, that in many instances hay fever and allergic rhinitis are caused by the membranes of the nose being constantly bathed with irritating discharges from an infected maxillary sinus which renders these membranes sensitive to almost any inspired irritant, and it has been my repeated clinical observation that many of these patients have been greatly relieved, if not entirely cured, by the removal of infected teeth.

But, however apposite they may be, these references digress from the discussion at hand; it is my desire to bring before you my conclusions regarding some of the many diseases of the eye that can be directly and positively traceable to oral sepsis.

It has long been my observation that the endotoxins absorbed into the general circulation have produced a direct effect on the ciliary muscles, thereby weakening the accommodation, causing headaches and general nervous instability, for the relief of which there has arisen a need for too frequent change of glasses.

Clinical observation has likewise shown many cases of long standing chronic conjunctivitis to be the result of dental sepsis, the infection having gained entrance into the conjunctival sac by way of the maxillary sinus, outward into the nose, and thence upward through the nasolacrimal duct into the lacrimal sac and canaliculae. Many lesions of this particular type are erroneously thought to be allergic in character. It is futile to treat them by local medication only.

Similarly, acute and chronic dacryocystitis may have a like origination, as do certain types of blepharitis marginalis, and not infrequently some types of corneal ulcerations, the latter conditions continuing in activity as

long as a devitalized tooth remains. Many cases of superficial and deep punctate keratitis, episcleritis, iritis, cyclitis, uveitis, retinitis and retinochoroiditis would not have occurred had the patient been more receptive to the advices of his ophthalmologist. I am quite convinced that I have observed certain cases of incipient cataracts as well as of glaucoma simplex where in the progress of the disease has been retarded or arrested by the elimination of obvious toxemias. Obstinate cases of traumatic iritis are so often traceable to dental sepsis that this focus of infection is at once suspected by ophthalmologists and the condition usually responds promptly upon proper dental treatment.

The foregoing are but a few of the diseases of the eye observed which I believe beyond reasonable doubt are often the result of proved dental infection. And so, if we recognize as a *fact* that these diseases can be the result of a definitely proved and demonstrable dental lesion, I should like to propound the question: What should be the attitude of the physician toward the devitalized teeth of an apparently healthy person, when such teeth show no demonstrable lesions in roentgenograms?

This question will, as a matter of course, be answered according to the clinical experiences of each individual practitioner. It would be an evasion of the question to answer that a devitalized tooth should certainly be removed if the patient has a serious ocular lesion and no other focal point has been found to account for the condition. But the moot point is: Are devitalized teeth potential sources of danger to the eye even though they appear uninfected in roentgenograms and the patient is otherwise in apparently good health? Who can say that one of these culprits may not at any time and without warning send forth its agents of destruction?

From some observers, I am sure the reply would be: "Well, if the roentgenograms are negative and the patient is in apparently good health, I see no necessity for such removal". Another reply, which I have often heard, is that every devitalized tooth should have careful observation and frequent roentgen examination, and at the first indication of deterioration it should be extracted. This reasoning may appeal to some as being prudent; others believe that every devitalized tooth should be extracted be-



fore degenerative changes have so progressed as to be apparent in the roentgenogram.

Doctors Reimann and Havens' of Philadelphia denounced the removal of infected teeth and with the same breath stated in point: "No one doubts that prompt improvement occasionally occurs after the extraction of suspected teeth" and: "Many ophthalmologists . . . feel that about one third of cases of iritis are due to focal infections, yet little or no proof exists for this belief except the improvement which occasionally follows the extraction of teeth". Since it would surely defeat the purpose of the conscientious physician should he overlook *any possible* avenue of relief for his patient, I cannot help but feel that these gentlemen are both ambiguous and equivocal, and certainly their discussion is neither logical nor pertinent to this meeting inasmuch as they specifically refer to the "indiscriminate removal of teeth and tonsils", and draw from England and Wales for certain conclusions encompassing the assumption that "in many cases financial considerations play a role". We know, of course, that the ethical physician does not practice his profession with "indiscriminate" abandon; and it is a foregone fact that the greater number of private patients are indeed intelligent, enlightened, and therefore able to seek for themselves the services of qualified specialists best trained to help them. However, I mention this reference in passing only because the article received prominence in a recent issue of the *A. M. A. Journal*.

In discussing this matter of the latent danger of devitalized teeth with Doctor Allen Greenwood, certainly one of the really great ophthalmologists of America, he expressed the opinion that it is permissible only in certain instances to leave teeth with single roots inasmuch as these can be more nearly filled to the tip and thus be less liable to degenerative changes. He was, however, frank to admit that even these teeth, under the best of circumstances, were potential sources of danger and should be kept under constant observation. To this point of view both my clinical observations and personal reasoning lead me to a disagreement for the following reasons:

1. I consider a devitalized tooth a foreign body in the system and subject to the ever present chemical and biologic processes which are constantly striving to rid the organism of

nonessential and nonfunctioning tissues. These end-products of decomposition must pass through our vital organs and, though admittedly minute in quantity, must have their effect in accumulated amounts on our nervous and vascular systems. Thus, a devitalized tooth, while it may be producing only minimum biologic changes of degeneration and decomposition which vital body forces can and do easily neutralize in most instances, is analogous to a bomb connected with a burning fuse which may be either long or short but which will eventually explode. And inasmuch as a devitalized tooth may be the producer of these toxemias, however small in amount, it is my policy to advise removal in all instances.

Knowing that when we are in our younger years our body resistance is sufficiently strong to throw off toxins without apparent ill effect, we equally well realize that when a person reaches the age of 40 years this resistance is so lowered that the smallest quantities of infection are more likely to be serious in their effect. It is my belief that any person who can come to the age of 40 without dental or other foci of infection from which to absorb toxins will live a longer, healthier and happier existence.

2. It has been my experience to observe serious and irreparable damage to the eye from infections caused by devitalized teeth which had been pronounced "clean" and "negative" both from dental and roentgenographic examinations. Who is there among us who can give a patient absolute assurance that such a tooth may not at any time begin to show changes in the roentgenograms?

My conclusion is that any devitalized tooth that shows a lesion in a roentgenogram has been allowed to remain too long intact. I am sure that all of us have had cases wherein the roentgenogram appeared negative but in which the tooth upon extraction revealed positive evidence of infection and degeneration.

Had I the time at my disposal and had you the inclination to attend, I could recount case after case in which lesions of various types were traceable to devitalized teeth which roentgenographic studies had shown to be apparently uninfected.

It is, of course, a known fact that countless are those who permit devitalized teeth to re-

main intact and suffer no dire consequences therefrom; yet I believe that the general health, vigor and vitality of even these people would be greatly improved were they rid of these burdens upon the forces of body resistance. And still the fact remains that lesions do develop in a certain percentage of these very persons, and the question arises: Are they justified in running the risk of possible physical or visual impairment for the sake of an additional chewing surface?

In the matter of ophthalmology there arises within me a compelling thought which one might well apply to himself when giving advice to another about the expediency of retaining or removing devitalized teeth: Suppose you, yourself, had already become totally blind in one eye. Would you be willing to jeopardize the health of your remaining good eye to the extent of tolerating any possible factor of destruction, even though the chances of affecting that eye from such a source be infinitesimal indeed? This identical decision is made by patients more frequently than might be surmised.

In conclusion, let me reiterate: I am well aware that this is a controversial subject and recognize the privilege of individual opinions; however, whether these be in accord or to the contrary, the clinical observation and actual experience of a vast number of ophthalmologists have proved that devitalized, pulpless teeth do play an important, and sometimes a disastrous, part in certain diseases of the eye. This remains an irrefutable fact which neither conjecture nor argument can alter.

1. Reimann, H. A., and Havens, W. P.: Focal Infection and Systemic Disease: A Critical Appraisal, *J. A. M. A.* 114:1-6 (Jan. 6), 1940.

502 Huntington Bldg.

#### REPORT OCCURRENCE OF FOUR RELAPSES OF PNEUMONIA IN SAME PATIENT

The unusual occurrence of a patient suffering four relapses of pneumonia, due to four different types of pneumococci, all within a period of fifty days, is reported in *The Journal of the American Medical Association* for March 1 by Edward Bigg, M. D., and Roger A. Harvey, M. D., Chicago, who state that recurrent attacks of pneumonia are extremely common but that a relapse is rare.

They define relapse as an affection of the same or different lobe of a lung a few days after the original infection has subsided. In contrast to this, a recurrence can take place years after the first illness.

The authors stress the importance of repeated laboratory studies of the sputum for the identification of the pneumococci in possible cases of relapse so that appropriate serum and drug treatment can be given.

#### A CASE OF STAPHYLOCOCCIC SEPTICEMIA TREATED WITH SULFAMETHYLTHIAZOLE

J. H. Pound, M. D.  
Tallahassee

Staphylococcic infections usually come from the skin. Septicemia is a febrile condition in which pathogenic bacteria and their associated poisons are constantly present in the blood and produce symptoms. It is primary when it occurs as an independent process, and secondary when it is a complication of one of the infectious diseases. The condition may occur with or without metastatic abscesses (pyemia).

The frequency of metastasis varies with the different bacteria, being 95 per cent in staphylococcic septicemia. Of the serous cavities, the joints are frequently involved, less often the pericardium, meninges, pleura and peritoneum. Predisposing causes are exposure to cold and wet, fatigue, loss of sleep, chronic diseases and other agents which lower the resistance to infection.

The portal of entry of the pathogenic bacteria may be any place where inflammatory processes occur. The most common site is the skin, where infected wounds, paronychia, phlegmons, boils, carbuncles and occasionally superficial wounds may initiate the trouble. Next in frequency are the sites of inflammatory processes associated with puerperal infections and infections resulting from abortions, and, lastly, localized areas of inflammation of other parts.<sup>1</sup>

Staphylococcic septicemia has been resistant to all therapeutic approaches, including bacteriophage, antitoxins and immunotransfusion. Sulfanilamide and sulfapyridine have been effective occasionally, but the results have not been consistent. Sulfamethylthiazole, a new chemotherapeutic agent of the sulfanilamide group, has been used successfully in treating cases of staphylococcic infection, including those with a positive blood culture<sup>2</sup>; however, because of a reported incidence of paralytic neuritis in approximately 1 per cent of the cases in which it had been administered, the use of this compound was precluded on account of its toxicity.<sup>3</sup> It has been supplanted by sulfathiazole, another new sulfonamide derivative, which is said to be almost equally as effective and which has not

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produced serious toxic conditions.' The case under consideration was treated with sulfamethylthiazole in April and May, 1940, at which time neither that drug nor sulfathiazole was for sale on the open market.

#### REPORT OF CASE

The patient was a white student, aged 22, taking a course in forestry at the University of Georgia. When ten years old he had had acute rheumatic fever, complicated by endocarditis and had been in bed for five months. His heart had been examined several times since, and he had continued to have a mitral murmur and cardiac hypertrophy. For several weeks prior to the onset of the present illness he had been stationed at a senior forestry camp in South Georgia where he had been cruising timber, work that necessitated walking at times in shallow water and swamp land. He had worn oxfords, and frequently his legs and ankles had been scratched by sticks and underbrush.

On the night of April 18, 1940, he had awakened with pain in the lumbar region. Next morning he had attempted to work, but due to the pain in his back he had gone to bed in the afternoon. On the morning of April 20 he had noticed an inflamed scratch on the inner surface of the left ankle with pain in this area and in the entire foot. That morning he had driven twelve miles to a physician and on arrival had been unable to walk up the steps due to pain in the foot and ankle. The doctor had suggested that he be admitted to a hospital, but the patient had declined since he wished to come to his home in Tallahassee. Neoprontosil, two tablets every six hours, had then been prescribed. He had arrived home that night. On April 21 the hip joint on the right side had begun to pain him and he had perspired profusely during the night.

The patient first came under my observation at 9 a.m. on April 22, approximately three days after the onset of symptoms. At that time he was perspiring profusely; his temperature was 100.4 F., pulse rate 108, and respiratory rate 18. His chief complaint was pain in the right hip, the left foot and ankle, and the back of the right knee.

On physical examination, a scratch was observed on the medial surface of the left ankle surrounded by an area of redness extending up the foot to the anterior surface of the ankle; flexion and extension of the foot caused much pain in the tendon areas of the anterior ankle, but not in the ankle joint. The right knee posteriorly was tender, but neither hot nor red; pain was present on motion but not in the knee joint. The right hip was also painful to motion, the pain apparently being in the joint. The heart rate was rapid with a diffuse impulse and a mitral murmur. The tonsils had been removed following the attack of acute rheumatic fever. There were no lymphangitis or adenopathy and no petechiae; the liver and spleen were neither painful nor large. The bowels had not moved in two days, and there was no history of a chill.

Urinalysis gave negative results. Examination of the blood revealed a leukocyte count of 12,100 with 84 per cent polymorphonuclears; there was no evidence of malaria.

At 7:30 p.m. on April 22 the temperature was 102 F., pulse rate 96 and respiratory rate 20. Pain was present in the right heel and hip and in the entire left foot. At that time the patient was started on sulfanilamide 20 grains and sodium bicarbonate 20 grains every six hours. The neoprontosil was discontinued.

Next morning at 9 o'clock his temperature was 101.4 F., pulse rate 108 and respiratory rate 18. He complained chiefly of pain in the right hip and tightness in the chest. The infected area on the left foot and ankle was less painful, and the redness was less marked. There had been no suppuration. Wet dressings of boric acid solution and continuous heat, with elevation of the foot and leg, had been used for the past twenty-four hours. Roentgen examination of the lungs gave negative re-

sults. The leukocyte count was 19,850 with polymorphonuclears 88 per cent. Blood was taken for a culture and agglutination tests. At 6 p.m. his pulse rate was 118, temperature 102.5 F., and respiratory rate 26. The muscles of the calf of the legs were sore, and all joints seemed painful to motion, but were neither red nor swollen. The right hip was less painful. The muscles of the back were very painful when he attempted to turn in bed.

At 9 a.m. on April 24, the sixth day of the illness, the temperature was 103 F., pulse rate 120 and respiratory rate 22. The leukocyte count was now 18,350 with polymorphonuclears 92 per cent. There was profuse perspiration, and the patient appeared to be growing worse. No rash, no petechiae, and no adenopathy were present. At 6 p.m. the temperature was 101.5 F., pulse rate 118 and respiratory rate 24. There was a considerable degree of cyanosis from the sulfanilamide, which was then reduced in amount to 15 grains every six hours.

The next morning at 9 a.m. the patient's temperature was 101.8 F., pulse rate 108 and respiratory rate 24. The right knee and right forearm were aching; the lungs were clear; the abdomen was distended; there was no eruption of the skin. The leukocyte count was 18,900 with polymorphonuclears 92 per cent and the erythrocyte count was 4,810,000. Urinalysis gave negative results as did laboratory tests for typhus, typhoid, paratyphoid and undulant fevers and tularemia. The blood Kahn reaction was negative. That afternoon the temperature was 102.6 F., pulse rate 118 and respiratory rate 24. He complained of much pain and soreness, chiefly in the muscles of the right elbow and forearm.

On April 26, the eighth day of the illness, the blood culture taken on April 23 was reported positive for staphylococci. Prior to this time reports of cases of staphylococcal infections treated with sulfamethylthiazole had been noted, but the drug was not for sale on the open market. A wire was sent to the manufacturers requesting a supply, but they advised that the drug had caused peripheral neuritis in some instances and that the supplies had been called in. Blood was taken for another culture. The patient complained of pain in the left upper quadrant of the abdomen and the left lower portion of the chest. Examination of the chest gave negative results. The patient's temperature was now 102 F., and the pulse rate 108. The leukocyte count was 14,950 with polymorphonuclears 92 per cent.

On April 27 at 9 a.m., the patient had a temperature of 102 F., with pulse rate 110 and respiratory rate 26. His chief complaint was pain in the left side of the chest anteriorly, which was more pronounced on deep inspiration. A friction rub was present in the area of pain. A few petechiae were present on the skin of the left side of the abdomen and on the inner surface of the lower lip. The patient was restless and complaining, and looked very ill. On this day, the ninth after the onset of the illness, he was transferred to a hospital.

At this time the blood showed hemoglobin 61 per cent (Dare), erythrocytes 3,580,000 and leukocytes 15,350 with 92 per cent polymorphonuclears. The sedimentation rate was 44 mm. in fifteen minutes, 118 mm. in forty-five minutes and 125 mm. in one hour. The urine contained bile (1 plus) and hyaline and granular casts in small numbers; the specific gravity was 1.025. A repeated agglutination test for typhus, typhoid and undulant fevers was negative as was the Kahn reaction. Blood was taken for another culture.

At this time a limited quantity of sulfamethylthiazole had been obtained from physicians in Georgia and Florida. The administration of this drug was begun on April 27, approximately nine days after the onset of the illness; 2 Gm. was given at 4 p.m. and 6 p.m. and 1 Gm. every four hours thereafter until 2 a.m. on May 4, at which time the supply was exhausted. The concentration of the drug in the blood stream was not determined. A total of 40 Gm. was administered.

On April 28 the culture of the blood taken on April 26 was reported positive for staphylococci. At 8 o'clock that night, twenty-eight hours after the first dose of the drug had been administered, the temperature was 98.4 F., pulse rate 96, and respiratory rate 24. The patient had



taken 10 Gm. of sulfamethylthiazole. The joint and muscle pains had become less severe and he felt much better. On the same day a roentgenogram of the chest showed the heart enlarged in all diameters. There was a moderate degree of increased density over the lower two-thirds of the left lung, which the roentgenologist interpreted as thickening of the pleura. From 8 p.m. April 28 until the patient left the hospital on May 14, the temperature did not rise above 99.6 F. On April 30, when it was elevated to this height, the leukocyte count was 13,900 with polymorphonuclears 69 per cent and the erythrocyte count 3,670,000; the hemoglobin estimation was 64 per cent. The blood culture taken April 27 was reported positive for staphylococci, the agar plate showing less than 5 colonies per cubic centimeter of blood. A blood culture and a culture of feces were reported negative for typhoid bacilli.

On May 1 the pain in the chest was much improved, and the toxic appearance had disappeared. The patient continued to have transient pains and stiffness, chiefly at night, in his thighs, arms and shoulders for several days. The last fever recorded while in the hospital was on May 5 at 8 p.m. when the temperature was 99 F., pulse rate 92 and respiratory rate 20.

On May 4 examination of the blood showed leukocytes 14,600 with polymorphonuclears 70 per cent, erythrocytes 3,750,000 and hemoglobin 63 per cent. On May 15 the leukocyte count was 16,100 with polymorphonuclears 71 per cent, and the erythrocyte count was 4,900,000 with hemoglobin 71 per cent.

After the patient returned to his home on May 14, the temperature rose slightly each afternoon, never going above 99.2 F., until May 22, after which there was no further rise. The leukocyte count gradually declined and on May 29 was 6,450 with polymorphonuclears 62 per cent. There has been no apparent change in the heart murmur nor in the size of the heart; the pulse rate was very slow in returning to normal and on May 29 was still ranging from 90 to 100. The culture of blood drawn from the vein on May 13 was reported negative on June 1.

#### CONCLUSIONS

1. (a) A patient with three blood cultures positive for staphylococci made an uneventful recovery following the administration of sulfamethylthiazole, which is significant in that the mortality of staphylococcic septicemia is notoriously high, varying from 60 per cent to 80 per cent,<sup>1</sup> and even approximating 90 per cent in persons more than 40 years of age.<sup>2</sup>

(b) The septicemia was evidently primary, resulting from a scratch on the foot. No suppuration occurred, and no metastatic abscesses are known to have occurred.

2. No evidence of neuritis was noted in the case presented.

3. There was no gastrointestinal irritation.

4. Urinalyses revealed no decided evidence of renal irritation.

5. During the administration of the drug, there was no significant decrease in either the erythrocyte or the leukocyte count.

6. One subsequent blood culture was negative.

7. It is possible that the neoprontosil and sulfanilamide administered had some influence on the course of the disease.

8. Sulfamethylthiazole, because of its toxicity, has been supplanted by sulfathiazole.

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### COMPARISON OF ROENTGENOLOGIC AND OPERATIVE FINDINGS IN 78 CALDWELL-LUC OPERATIONS

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St. Petersburg

Although the importance of chronic sinusitis as a focus of infection is a debated question in some circles, there are undoubted instances where the care of disease in the paranasal sinuses becomes an important factor in the handling of obscure medical and surgical conditions.

The diagnosis of acute sinusitis and of copiously purulent chronic sinusitis is usually easily made but when chronicity is only suspected and discharge is scanty, the diagnostic problem frequently becomes extremely difficult. Too often, short cuts are attempted in arriving at an accurate diagnosis in these obscure cases. One of the commonest errors seems to be the growing dependence upon roentgenologic examination to do for us something it can not logically be expected to accomplish, namely, to give never failing accuracy in demonstrating the presence and type of paranasal sinus pathology. All too frequently the rhinologist, with much less excuse than the internist, is willing to rest his "diagnostic oars" on the roentgenologist's report of "sinuses are clear," "antra show thickening of the mucous membrane lining," "there is hazing of the frontal sinuses," etc.

In these obscure cases, it is frequently necessary to use every diagnostic aid available, as well as the x-ray, in order to arrive at a satis-

factory diagnosis and plan of treatment. Of most importance are the following:

(1) A detailed history of all significant upper respiratory infections; (2) repeated rhinoscopic examination, including the use of the nasopharyngoscope; (3) lavage of the sinuses permitting that procedure; (4) cytologic studies of the nasal secretions; (5) allergic studies; and (6) fortification of the impression gained from the above by roentgenologic evidence of disease.

Maxwell recently showed that it is extremely difficult to prognosticate the pathologic state of the mastoid cells and their linings by roentgenologic examination. Past observations indicate that a similar discrepancy would be found between roentgenologic evidence of antrum disease and operative findings if such a study were undertaken.

For the purpose of this study, which was conducted at the Henry Ford Hospital in Detroit, it was decided to use fifty consecutive patients upon whom either a unilateral or bilateral Caldwell-Luc operation was performed. In order to avoid so far as possible those errors contingent upon lapse of time between roentgenologic examination and operation, surgery was performed as soon after the examination as was practicable. Furthermore, although some of the patients gave a history of various types of allergy, no case of acute allergy was included in this series. The roentgenologic examination in all cases included stereoscopic Waters' position films, a film for the sphenoid sinus, and a lateral film. Standard technique with the Bucky diaphragm was used. Twenty-two unilateral and 28 bilateral Caldwell-Luc operations were performed, resulting in 78 antra being examined for this report. The results obtained are shown, broken down into component parts, in the following table.

X-ray Report	Operative Findings					
	THICK M.M.	THICK M.M.	SOLID M.M.	SOLID Bone	PUS	NORMAL M.M.
Antrum clouded & M. M. thickened	20	with pus 24				6
Antrum is clouded	8	10	2	1	1	3
Antrum is normal	1					2
	29	34	2	1	1	11

Nine antra reported diseased by roentgenogram were found to be normal at operation. One antrum, which the roentgenogram reported as normal but which was operated upon for clinical reasons, was found to contain definitely thickened mucous membrane. These ten antra comprise 13 per cent of the entire series. Forty-four antra, comprising 57 per cent of the series, were found at operation to agree more or less

accurately with the roentgenologic report of clouding with thickened mucous membrane.

Twenty-two antra, comprising 28 per cent of the series, which were reported as being clouded, form the most interesting group in this study. Eight of these antra were found to contain such definitely thickened linings on the one hand, or such minimal thickening on the other, that no shadow of the membrane lining could be expected to be cast onto the film. A group of ten antra contained thick purulent secretion as well as thickened linings, the pus concealing the outline of the linings. No other report than clouding could possibly be expected in the remaining four cases; in two the antra were filled with edematous membrane, in one the antrum was filled with pus, and in one no antrum could be demonstrated, the usual space being filled with cancellous bone, a result of nondevelopment.

These twenty-two antra, by the very nature of their widely varying pathologic change clearly illustrate that in such cases roentgenograms cannot be expected to show more than a general clouding.

SUMMARY AND CONCLUSIONS

Roentgenologic examination gave a completely inaccurate impression in only 13 per cent of cases in this series. In 28 per cent roentgenograms showed clouding, and it has been shown that a more accurate report of the actual pathologic state in this group is beyond reasonable expectancy. The x-ray must, therefore, despite a fairly large group of equivocal reports, be credited in this study with an accuracy of 87 per cent.

It must also be apparent, if this short work may be considered to portray a fairly accurate picture, that roentgenologic examination is only one of the aids to the diagnosis of sinus pathology, and that complete and repeated clinical examinations remain a most important factor.

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## THE ELECTROCARDIOGRAM IN CORONARY DISEASE

Franz Stewart, M. D.  
Miami

The electrocardiograph has become recognized as an instrument of precision. It has done much to remold and clarify our understanding of the nature of heart disease. Since it has become our teacher a great deal has been learned of heart disease and its effect on the electrocardiogram; physicians have more and more leaned on it for diagnosis, prognosis, and even for treatment.

In the study of a sick man there is so much that we cannot know and cannot understand; it is not remarkable that we should search for some definite visible sign on which to hang a diagnosis. In coronary disease this sign is too often lacking. It is difficult to remember that any diagnosis is probably based 70 per cent on what the patient tells the physician and 20 per cent on the results of the physical examination. This leaves a mere 10 per cent determination for the instruments of precision and the laboratory. This is true in the study of coronary disease.

In instances of anginal syndrome the sick man's story is all important. I know of no sure physical sign and of no laboratory procedure to prove or disprove the presence of pain. Pain produced from myocardial anoxemia is usually more or less characteristic but the diagnosis is more secure if other evidence of heart disease can be found.

When the coronary arteries are diseased sufficiently to cause symptoms either of pain or of heart failure the myocardium has usually suffered a measurable defect from faulty blood supply. The electrocardiogram will reflect this myocardial damage.

Changes in the coronary arteries themselves do not cause changes in the electrocardiogram. The pathologist has observed cases in which the autopsy revealed marked coronary arteriosclerosis though the patient had had no symptoms referable to the heart, and others in which there was heart pain while no abnormality was shown in the electrocardiogram. Likewise, we may find cases in which conduction defects were present in the electrocardiogram and the arteries sclerotic at autopsy, yet in which the patient lived out his life without symptoms of heart disease.

The electrocardiograph, then, can give evidence of myocardial damage, but not of coronary sclerosis. The type of change that is seen in the electrocardiogram depends not so much on the nature of the myocardial damage as on the size and position of the damaged area in the heart muscle. Disease of the coronary arteries should cause damage to (1) different areas of the myocardium in different cases, and (2) to different sites in the same case at different times, the location of the lesion depending on which part of the artery is diseased enough to injure the area of myocardium it supplies. If this is true the electrocardiographic changes should be most variable.

In the study of electrocardiograms this is seen to be true. Almost any conceivable defect may be found associated with myocardial damage from coronary disease.

When the myocardial damage involves a part of the specialized conduction bundles the heart block will be reflected in the tracing. All types of arrhythmia are at times found to be the result of the effects of coronary disease.

The many disease processes which cause myocardial changes are reflected in the electrocardiogram. This reflection is not specific for each disease. The evidence of damage, whether it be from syphilis, rheumatic fever, or coronary disease, is the same except that larger or smaller areas of the myocardium are shown to be affected in the different diseased states. The permanency of damage also gives a hint as to the underlying cause. Heart block (prolonged P. R. interval) tends to be more transitory in rheumatic fever than in chronic coronary disease.

The significance and the value of the electrocardiogram in coronary disease is not so much in the type of change seen as in the fact that myocardial damage is indicated. The electrocardiogram may be the only evidence of such damage. When myocardial lesions are reflected in the electrocardiogram, one can usually expect significant coronary sclerosis after, of course, other causes of myocardial damage have been excluded by other means. Thus, indirectly, the electrocardiogram is of great value in the diagnosis of coronary disease.

The diagnosis of myocardial infarction from coronary occlusion can often be made with reasonable certainty from the changes in the elec-



trocardiogram alone. This is not because occlusion of an artery or infarction of a myocardium produces a particular type of damage reflected in the electrocardiogram, but because there is probably no other condition producing damage to a particular area of muscle supplied by one artery. The muscle change is progressive as the infarct forms and later heals. The electrocardiogram records these changing conditions. The electrocardiographic changes characteristic of healed infarction may persist for years and be the only remaining evidence of the effects of an old coronary disease which may never have been recognized.

There is little value in trying to enumerate all of the electrocardiographic changes which are seen as a result of coronary disease. Suffice it to say that the alterations may range from none at all to and including every possible change. The changes which result from infarction are likewise variable and may include many or all possible deviations. Arrhythmias are particularly prone to develop during the course of myocardial infarction.

At the same time, a classic sequence of events can often be observed which is diagnostic of coronary occlusion. These changes begin in a few hours after the occlusion and become fixed in from a week to several months. It is difficult

to fix the time of occlusion. Pain may precede damaging arterial blockage by hours or days. The electrocardiogram will not reflect the pain; changes will appear only after infarction begins.

The electrocardiographic diagnosis usually depends on a sequence of events seen only by serial tracings. Often a single tracing in a series will fail to show diagnostic changes but taken with the whole series becomes typical.

The electrocardiogram is of value in the study of coronary disease but is only one link in the chain of diagnosis. Its evidence of myocardial damage may be the only sign of significant disease and when other methods rule out other causes of myocardial damage the tracing becomes presumptive evidence of coronary sclerosis. Myocardial infarction, recent or ancient, may be reflected in the electrocardiogram and the tracing be the only evidence of the damage from coronary disease.

When taken in the light of other findings the electrocardiogram is of great value. When interpreted as an isolated finding it may be confusing and misleading. It is most helpful when read by the physician taking care of the patient.

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*The April Journal will have a full writeup. For preliminary information, see page 458 of this Journal*

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**CONVENTION, JACKSONVILLE**

Plans for entertaining the State Association at its Sixty-eighth Annual Convention to be held in Jacksonville, April 28, 29 and 30, are under way. The Duval County Medical Society, acting as host, has set up fourteen committees that will function under the leadership of Dr. Luther W. Holloway, General Chairman, to look after the various activities in connection with entertainment.

The April Journal, the convention number, will contain full information concerning the program and entertainment. It is planned to mail this April Journal a week ahead of the regular schedule, in order that the members may have full information in advance of the meeting. The Roosevelt Hotel has been designated as headquarters. Members and guests should go to the Roosevelt Hotel on arrival, register and secure their badges and programs. Scientific and technical exhibits will be on display at this hotel.

Dr. Herbert E. White and his Committee on Scientific Work have prepared an excellent scientific program which has been divided into four sections: the first on Monday from 7:00 to 8:30 p.m.; the second on Tuesday from 9:00 to 12:00 a.m.; the third on Tuesday from 1:30 to 4:30 p.m.; and the fourth on Wednesday

from 9:00 to 11:30 a.m. President Turberville has invited Dr. Scale Harris, Sr., of Birmingham to be the guest speaker. His address is scheduled for Tuesday morning at 11:30 in the ballroom of the Roosevelt Hotel.

The first meeting of the House of Delegates will convene at 1:30 p.m., Monday, April 28. Each component society's representation in the House of Delegates will be one delegate for each twenty members who have paid 1941 dues. Thirty days in advance of the annual meeting secretaries of county medical societies are required to forward 1941 dues of their members to the secretary of the State Association.

The first general session is scheduled for Monday at 4:30 p.m. At this session the president's annual address and the annual report of the secretary-treasurer-editor and the managing director will be heard.

A stag smoker has been arranged for Monday at 9 p.m. and the Association dinner will take place on Tuesday at 7:30 p.m.

A number of specialty groups have arranged programs for Sunday afternoon and Monday forenoon; these include the Florida Pediatric Society, the Florida Association of Industrial Surgeons, the Florida Radiological Society, the Florida Society of Ophthalmology and Otolaryngology, the Florida Section of the American College of Physicians, the Florida Section of the American College of Surgeons, the Florida Railway Surgeons' Association, the Florida Society of Dermatology and Syphilology, the Health Officers' group and the Florida Society of Obstetrics and Gynecology.

The time and place of each of the sessions listed will be found in the April Journal and in the printed program. A record attendance is anticipated.

**1941 JOHN PHILLIPS MEMORIAL AWARD**

On the recommendation of the Committee on Fellowships and Awards, the Board of Regents of the American College of Physicians, by unanimous resolution, has voted that the John Phillips Memorial Medal for 1941 be awarded to Dr. William Christopher Stadie, Associate Professor of Research Medicine at the University of Pennsylvania, for his significant contributions to the knowledge of anoxia, cyanosis and the physical chemistry of hemoglobin, and more especially for his recent studies on the subject of fat metabolism in diabetes mellitus.

This Award was established by the College October 27, 1929, to be given periodically for some outstanding piece of work in Internal Medicine. Internal Medicine in this instance is interpreted to include not only clinical science, but all of those subjects which have a direct bearing upon the advancement of clinical science. The work must have been done in whole or in part in the United States or in Canada.



### THIRTEENTH ANNIVERSARY NUMBER OF THE HAROFE HAI'RI

*"The Hebrew Medical Journal"*

The attention of the medical profession is directed to the appearance of a special issue of HAROFE HAI'RI (The Hebrew Medical Journal), a semi-annual publication, edited by Dr. Moses Einhorn. This volume commemorates the thirteenth anniversary of this journal and is dedicated to Prof. Sigmund Freud.

The contents of this journal are not confined to technical medical topics, but are divided into several sections covering a variety of related subjects, such as Medicine in the Bible and Talmud, Old Hebrew Medical Manuscripts, Palestine and Health, etc. Among the contributors to the medical and editorial sections, have been such prominent physicians as I. S. Wechsler, A. Rongy, S. Solis-Cohen, B. Crohn, R. L. Kahn, J. Bullowa, D. Macht, etc.

In the section on Sigmund Freud, Dr. A. A. Brill presents a masterful exposition of "Freud's Metapsychology," and Dr. Philip Lehrman recounts much biographical detail and the story of Freud's earliest researches.

Another section of HAROFE HAI'RI presents from time to time mediaeval medical treatises, heretofore unpublished and interesting both from a historic and scientific viewpoint. In this volume a manuscript entitled "Hygiene of the Body" is included; it is written in verse by the famous Yehuda al-Charisi, who lived in Spain during the 12th century. Under the heading of "Personalalia," biographical sketches of the foremost late physicians have been presented and their contributions to medicine reviewed.

In addition to an English-Hebrew medical dictionary, the original articles are summarized in English, to make them available to those who are unable to read Hebrew.

For further information, communicate with the editorial office of the HAROFE HAI'RI, 983 Park Avenue, New York City.

## BIRTHS, MARRIAGES AND DEATHS

### BIRTHS

Dr. and Mrs. Charles F. Henley of Jacksonville announce the birth of a son, Robert Newton II, on February 17.

### MARRIAGES

Dr. Charles E. Tribble of DeLand and Miss Ann Bernice Jennings of Green Cove Springs were married on February 9.

Dr. E. Clements Watt of Jacksonville and Miss Annie Kathryn Robbins of Apalachicola were married on February 6.

Dr. K. K. Waering and Miss Elizabeth B. Brack of Jacksonville were married on February 15.

Dr. J. Braden Quicksall and Miss Frances Marion Ewing of St. Petersburg were married on February 6.

Dr. George W. Morse of Statesville, N. C., (formerly of Jacksonville), and Miss Sybil Annette Newman of Jacksonville were married in February.

### DEATHS

Dr. L. B. Mitchell of Tampa died on January 26.

Dr. F. Clifton Moor of Tallahassee died on February 18.

Dr. Seeber King of Lake Butler died in Jacksonville on February 28.

## STATE NEWS ITEMS

*Let's go fishing* Monday, Tuesday or Wednesday, April 28, 29, and 30. Parties will be taken to McKenna's Camp on the Bayshore Road where they will be outfitted with tackle, bait, and boat. Speckled trout, drum and bass are plentiful in these waters.

Application may be made in advance by those interested in this sport, or they may register at the Information Desk in the main lobby of the Roosevelt Hotel upon their arrival in Jacksonville. Applicants will be given their choice of mornings or afternoons for these trips.

Address all communications to Dr. Banks H. Goodale, Chairman of Anglers' Committee, 314 St. James Building, Jacksonville.

\* \* \*

Dr. A. L. Stebbins of Pensacola, director of the Escambia County Health Department, took a course in obstetrics at the University of Chicago Lying-In Hospital during the month of January.

\* \* \*

Dr. F. V. Chappell has moved from St. Petersburg to Madison, Florida, where he is again entering private practice.

\* \* \*

Region II of the American Academy of Pediatrics will hold a meeting at the John Marshall Hotel, Richmond, Va., April 24 and 25. All members of the State Association who are interested in pediatrics are invited to attend.

\* \* \*

Dr. Louis G. Lytton announces the opening of offices at 302 Mercantile National Bank Building, Miami Beach. His practice will be limited to eye, ear, nose and throat work and bronchoscopy.

\* \* \*

Dr. Harry B. Smith of Tavares was recently appointed director of the Bureau of Epidemiology of the State Board of Health, according to an announcement by Dr. William H. Pickett, State Health Officer.

The Southeastern Section of the American Urological Association held its Seventh Annual Convention in Jacksonville on February 21 and 22. This Section draws its members from Alabama, Florida, Georgia, Kentucky, Louisiana, North and South Carolina, Mississippi and Tennessee.

Dr. J. C. Pennington of Nashville was designated president for the coming year; Dr. Louis M. Orr of Orlando, who has served the organization as secretary-treasurer, was elevated to the position of president-elect; Dr. Harold P. McDonald of Atlanta was named secretary-treasurer. Dr. Robert B. McIver of Jacksonville is the Florida representative on the Executive Committee.

Chattanooga was selected as the next meeting place.

\* \* \*

The Florida Section of the American College of Surgeons will hold a dinner at 6:30 p. m., Sunday, April 27, in the Club Room of the George Washington Hotel. All members are urged to attend. It is expected that Dr. Malcolm T. MacEachern, Associate Director of the American College of Surgeons, will be present.

#### FREDERICK CLIFTON MOOR

Dr. F. Clifton Moor of Tallahassee, past president and life member of the Florida Medical Association, died on February 18 after a lengthy illness, at the age of 61. He is survived by his widow, Margaret Howell Moor; two daughters, Mrs. Margaret M. Datson and Mrs. Sara M. Smith; a son, Frederick Clifton, Jr.; two grandchildren; one brother, Frank Moor of Tallahassee, and two sisters, Mrs. Slater Wight of Cairo, Georgia, and Mrs. W. W. Hughes of Memphis.

A son of the late William L. Moor, M.D., and Lina Clifton Moor, he was born in Miccosukee and moved to Tallahassee in his early childhood. Receiving his preliminary education in the public schools of that county, he attended the West Florida Seminary in Tallahassee, going from there to receive his B.A. degree at Emory College, Oxford, Ga., in 1898.

He studied medicine at the University of

Maryland, from which he was graduated with an M.D. degree in 1903. Returning to Tallahassee, he took up the practice of medicine there the year following.

He was married to Miss Margaret Howell of Washington, D. C., in 1904.

During the World War, Dr. Moor served in the Medical Corps of the U. S. Army. Commissioned as captain in 1917, he was ordered to active duty in December of that year and went overseas with the Twenty-Ninth Engineers. He became surgeon of the 301st Field Artillery a few months later and served until the end of the war. He was mustered out of service as a major at Camp Devens, Mass., in February, 1919.

Except for this military service, Dr. Moor spent his entire adult life in the practice of medicine in Tallahassee.

Besides his wide practice in Tallahassee and vicinity, he had been chief surgeon at the Florida State College for Women for more than 20 years.

Having served in earlier years on the old city council of Tallahassee, he was elected to the city commission in 1939 and was serving as mayor when he resigned a few months ago. For a number of years he was a trustee of the Tallahassee school district.

Dr. Moor was a past president of the Florida Medical Association, a Fellow of the American Medical Association, a member of the Southern Medical Association and the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society. He was also a Fellow of the American College of Physicians and a member of the American Society of Tropical Medicine. He was the first president of the Suwannee River Council of the Boy Scouts of America, a member of the Elks Club, a Mason and a Shriner, a charter member and first president of the Rotary Club in Tallahassee.

Dr. Moor's active interest in organized medicine won for him friends and acquaintances in all parts of the state as well as in southern Georgia, who will feel a personal loss in his passing.



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## LUCIEN BAYARD MITCHELL

Dr. Lucien B. Mitchell of Tampa died at his home on January 26 after a brief illness. He was 60 years of age.

Dr. Mitchell was born at Fort Meade, the son of Dr. C. L. and Ellen M. Mitchell, Florida pioneers. His father's family was from Birmingham, Alabama, and his mother's from Savannah, Georgia. His uncle, Henry L. Mitchell, was at one time governor of Florida and later served on the Supreme court bench.

After completing his early education at Fort Meade, Dr. Mitchell came to Tampa and attended the Hillsborough high school. He became a pharmacist and worked for several years with the Weedon Drug Company and the Hutchinson-Cotter Drug Company. After gaining a sound knowledge of pharmacy, he attended the New York University College of Medicine, from which he received his M. D. degree in 1906. After a two-year internship at Bellevue Hospital, he returned to Tampa to enter the practice of his profession. Three years later he was married to Miss Marie Gutierrez, daughter of a prominent Spanish family of Tampa.

In 1916, Dr. Mitchell went to the Mexican border as a first lieutenant with the Florida National Guard. He returned and was mustered out, but joined the reserve officers medical corps. He became a captain, then a major and went overseas as regimental surgeon of the 54th Infantry, Sixth Division of regulars, with whom he saw action in the Argonne. At the close of the war he returned to Tampa and resumed his practice.

Dr. Mitchell was a member of the Hillsborough County Medical Society, the Florida and American Medical Associations and of the Society of Military Surgeons. He was on the staffs of the Tampa Municipal and the St. Joseph's Hospitals. He was a member of the First Methodist Church, a Mason and a Shriner.

Hard-working, always ready day or night to go to the aid of rich or poor, Dr. Mitchell was the kind of doctor who ennobled a noble calling. He is sincerely mourned, and the memory of his long career of good deeds will be his greatest monument.

## MONTGOMERY M. HANNUM

At its February meeting, the Lake County Medical Society passed the following Resolutions on the death of Dr. M. M. Hannum:

*Whereas*, it has pleased Almighty God in His divine wisdom and mercy to call from our midst our beloved colleague, Montgomery M. Hannum, and

*Whereas*, Lake County has lost one of its outstanding surgeons as well as an outstanding citizen, who took a deep and untiring interest in civic affairs, and was an indefatigable worker for everything that was for the best interest of the community, and

*Whereas*, the members of the Lake County Medical Society have lost a wise counsellor, a willing and able member, a hard worker for everything that made for progress in the profession, and a courageous leader, therefore be it

*Resolved*, that we, the members of the Lake County Medical Society, fully conscious of the great loss of our colleague and friend, do hereby offer our deepest sympathy to the bereaved family; and be it further

*Resolved* that a copy of these resolutions be spread upon the minutes as a permanent record and a copy be sent to the family.

## COMPONENT COUNTY SOCIETIES

## COLUMBIA

Heading the Columbia County Medical Society for 1941 are the following officers:  
President—H. S. Howell, Lake City  
Secretary-treasurer—Thomas H. Bates, Lake City

\* \* \*

## DADE

At the meeting of the Dade County Medical Society held March 5, the following program was presented:

"The Physiology of Urinary Excretion and Micturition"—Frank M. Woods; discussion by E. Clay Shaw and E. Sterling Nichol.

"Hyperparathyroidism"—Jack O. W. Rash; discussion by S. Marion Salley and Carl F. Haub.

\* \* \*

## DUVAL

The regular monthly meeting of the Duval County Medical Society was held on the evening of February 4 in the State Board of Health Building, with Dr. S. R. Norris presiding.

The program, under the direction of Dr. James M. Bryant, consisted of a symposium on "Sulfanilamide, Sulfapyridine, and Sulfathiazole" presented by Drs. Karl Hanson, George W. Croft, and Frederick J. Waas.

Guest medical officers from the Naval Air Station were introduced. Refreshments were served following the business session.



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1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph. Gon. & Ven. Dis., 23, 201 (March) 1939.

\*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble irritation for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

## ESCAMBIA

The officers of the Escambia County Medical Society for the current year are:

President—W. P. Hixon, Pensacola

Vice-president—J. J. McGuire, Pensacola

Secretary-treasurer—W. E. Tugwell, Pensacola.

\* \* \*

## JACKSON

The Jackson County Medical Society is this year headed by the following officers:

President—M. Q. Burns, Blountstown

Vice-president—D. A. McKinnon, Marianna

Secretary-treasurer—R. N. Joyner, Marianna

\* \* \*

## PALM BEACH

The Palm Beach County Medical Society held its February meeting at the Good Samaritan Hospital, February 25. Dr. Frank Lahey was guest speaker, presenting a paper on "Lesions of the Stomach, Duodenum and Jejunum."

\* \* \*

## PINELLAS

The Pinellas County Medical Society held a special meeting on Wednesday evening, February 5 to hear Dr. R. K. Ghormley, orthopedic surgeon of the Mayo Clinic, speak on "The Differential Diagnosis and Treatment of Low Back Pain." Members of neighboring societies were invited to attend this meeting.

\* \* \*

## PUTNAM

Dr. Allen P. Gurganious of Palatka has been appointed secretary of the Putnam County Medical Society by Dr. C. M. Knight, president. Dr. Gurganious will complete the unexpired term of Dr. J. Worth Brantley who has been called into service.

\* \* \*

## ST. JOHNS

The following officers have been elected by the St. Johns County Medical Society for 1941:

President—A. C. Walkup

Vice-president—Reddin Britt

Secretary—Charles C. Grace

Treasurer—R. D. Harris

\* \* \*

## ST. LUCIE-OKEECHOBEE-INDIAN RIVER-MARTIN

Officers of the St. Lucie-Okeechobee-Indian River-Martin County Medical Society for the current year are:

President—J. B. Kollar, Vero Beach

Vice-president—R. C. Boothe, Fort Pierce

Secretary-treasurer—A. M. Sample, Ft. Pierce

Drs. H. D. Clark and J. D. Parker have been elected to the Board of Censors.

## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**Evaluation of Wolff's Law of Bone Formation,**  
KUSHNER, ALEXANDER, Miami, *J. Bone & Joint. Surg.* **22:** 589-596 (July), 1940.

This paper is concerned with a fundamental principle of bone formation, the changes in bone growth brought about by mechanical influences. According to Wolff's law bone formation takes place wherever pressure or tension is caused in bone. The writer refutes the arguments advanced by Jansen who held that pressure alone resulted in bone formation and that tension always produced bone atrophy.

He cites several interesting examples of bone growth following bone transplantation and lengthening where tension was the only mechanical stress present, demonstrating that pressure is not indispensable for the continued formation of bone.

He concludes that bone grafting is permissible in areas under tension, such as the thoracic spine fractured patella, bone block of the knee, or in cross union of fibula to tibia in ununited fracture.

## ADVERTISERS' NOTES

BRIEF HISTORICAL NOTES ON MEAD'S  
CEREAL AND PABLUM

Hand in hand with pediatric progress, the introduction of Mead's Cereal in 1930 marked a new concept in the function of cereals in the child's dietary. For 150 years before that, since the days of "pap" and "panada," there had been no noteworthy improvement in the nutritive quality of cereals for infant feeding. Cereals were fed principally for their carbohydrate content.

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(1) As little as one-sixth ounce of Mead's Cereal supplies over half of the iron and more than one-fifth of the vitamin B<sub>1</sub> minimum requirements of the 3-months-old bottle-fed baby. (2) One-half ounce of Mead's Cereal furnishes all of the iron and two-thirds of the vitamin B<sub>1</sub> minimum requirements of the 6-months-old breast-fed baby.

That the medical profession has recognized the importance of this contribution is indicated by the fact that cereal is now included in the baby's diet as early as the third or fourth month instead of at the sixth to twelfth month as was the custom only a decade or two ago.





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#### CHEMOTHERAPY IN GONORRHEA

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Mrs. E. W. VEAL, Northeast "C" ..... Jacksonville  
Mrs. J. C. GRIFFIN, Southwest "D" ..... Tampa  
Mrs. W. C. PAGE, South Central "E" ..... Cocoa  
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## NATIONAL AUXILIARY MEETING

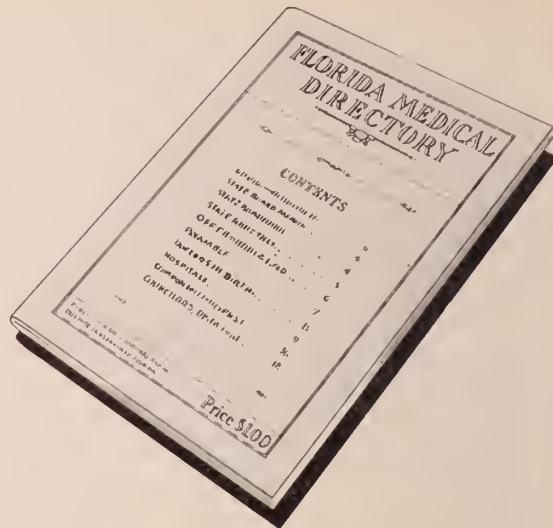
The Hotel Carter will be the headquarters for the Annual Meeting of the Woman's Auxiliary to the American Medical Association which will be held in Cleveland, June 2-6, 1941. Requests for reservations should be sent immediately to Dr. Edward F. Kieger, Chairman of the Committee on Hotels and Housing, 1604 Terminal Building, Cleveland, Ohio.

## BULLETIN

Mrs. Gordon H. Ira, state president, is using this column to pass on to you a brief message from our national president, Mrs. V. E. Holcombe, in regard to the National Bulletin. Please read it carefully and try to realize the value and importance of this, the official organ of the Woman's Auxiliary. It is the sincere hope of your president that Florida shall send in her quota of subscriptions without delay. Let us adopt as our slogan, "Every Auxiliary member a subscriber to the National Bulletin." Mrs. Holcombe says in part:

Our chief difficulty in this campaign has been the matter of convincing the membership that subscription to the *Bulletin* is not only profitable to the work and activities of the Auxiliary, but indispensable to the individual member who is desirous of keeping informed, and active, in the accomplishment of our objectives as an organization. Many of our members do not yet recognize the benefits of the *Bulletin* and are inclined to overlook its potentialities, which, I assure you, are great. Still others admit the general worth of the *Bulletin*, but are very lackadaisical of their faith in the form of a subscription. Needless to say, the *Bulletin* however splendid it may be, can never be a force in the accomplishment of our several objectives unless it receives the active support of a substantial percent or fails as that enthusiasm rises or falls.

Information and inspiration are in many ways related. The one proceeds from the other. Without information



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there can be no inspiration worthy of the name. And without inspiration there can be no effective progress in any cause. The *Bulletin* is now a source of inspiration to those of our membership who subscribe to it. Its presence in the individual homes of our members makes it a force which, potentially at least, has no equal.

A result of inspiration is activity. Inspiration which fails to result in activity is non-productive and useless—and in many instances even harmful. We believe that through the dispersal of knowledge of successful activity, more activity will be motivated. There is an old saying that nothing succeeds like success. In other words, when a member sees that an organization is really going somewhere, that member will pitch in and do his part with more spirit and enthusiasm than he would give to a seemingly stagnant cause. Children know that the best way to build a snow man is to make a small snowball and then give it a push. Let us all endeavor to start our little circulation ball to rolling. Once it gains enough momentum its growth will take care of itself and become, as we want it to be, self-regulatory.

Our goal is 6,000 subscriptions. The attainment of this goal will not be easy, but it is possible. To achieve it will require the earnest effort of each local and state group. We must not give up. Let us all work together to put this drive "over the top."

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#### A MESSAGE FROM MRS. INGRAM

If your doctor man forgot to take home the December Journal, look for it yourself as it carried an article on District Meetings, of which this will be a continuation

As you will recall, two years ago last May, we divided the state into districts corresponding to those of the State Medical Association, meeting at the same time and place as the doctors. Except for District "A", the Northwest Medical District, a chairman was appointed for each district. Meetings were held at which the attendance was good, the entertainment excellent, and the results gratifying.

Driving down from Minnesota last Fall, Dr. Ingram and I arrived in Pensacola two days before the District meeting, which was held October 5, 1940. We did not stay for the meeting but I did make several contacts regarding an organization, and assurance was given me that if notifications were given in time, well ahead of the meeting, a District Auxiliary no doubt could be organized. This year, when the meeting will be held in Tallahassee, I hope this can be accomplished. The territory is large

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F. I. C. 6 Notification of Securing Compensation

F. I. C. 7 Employer's Notice to Reject  
F. I. C. 7A Employee's Notice to Reject  
F. I. C. 8 Employer's Notice to Waive Exemption  
F. I. C. 9 Final Medical Report  
F. I. C. 10 Employee's Notice of Injury to Employer  
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and, with so much valuable material, a splendid District Auxiliary should be well supported.

The North Central District "B" meeting was held in Lake City on October 4, 1940, with Mrs. George C. Tillman of Gainesville as chairman. The members of the Suwannee River Auxiliary acted as hostesses.

The Northeast District "C" meeting was held in Daytona Beach, October 3, 1940, with Mrs. E. W. Veal of Jacksonville as chairman. The ladies of that section were hostesses.

The Southwest District "D" meeting was held at Dunedin October 31, 1940, with Mrs. Clyde Anderson of St. Petersburg the chairman. Mrs. J. C. Griffin of Tampa was elected chairman for the coming year and Mrs. H. G. Nix of Tampa was named secretary-treasurer. The ladies of Dunedin served as hostesses.

The South Central District "E" meeting was held at Fort Pierce on November 1, 1940. Mrs. J. N. Tolar, chairman, was unable to be present. Mrs. W. C. Page of Cocoa was elected chairman and Mrs. T. F. McDaniel of Sanford was elected secretary-treasurer. The ladies of Fort Pierce acted as hostesses.

The meeting of the Southeast District "F" was held at Coral Gables, November 2, 1940, with Mrs. H. A. Leavitt of Miami as chairman. Mrs. Hillard Willis of Coral Gables was elected chairman and Mrs. Jack McKenzie of Miami, secretary-treasurer.

At each of these meetings the local ladies did themselves proud with the entertainment. Although the organizations are rather new, the interest is growing. Because our state is vast and has few large cities, I believe these District Auxiliaries are suited to us and I hope you ladies will continue in your good work. Please stand by your local, state and national officers.

The wife of a doctor in good standing is eligible to become a member of any of these District Auxiliaries by paying \$1.00 dues per year. If she is a member of a local auxiliary, she may join the district organization without added dues.

Mrs. Ira, your president, and I attended most of these District Auxiliaries.

Keep the Annual Meeting in mind and plan to be there with your written reports. It helps heaps—I know.

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### STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville...	Jacksonville, Apr. 28-30, 1941
Medical Districts:			
Northwest .....	B. A. Wilkinson, Tallahassee .....	Stewart Thompson, Jacksonville ..	Tallahassee, 1941
North Central .....	William S. Nichols, Lake City .....	" " "	Gainesville, 1941
Northeast .....	Robt. B. McIver, Jacksonville .....	" " "	St. Augustine, 1941
Southwest .....	W. C. McConnell, St. Petersburg .....	" " "	Bartow, 1941
South Central .....	A. M. Sample, Ft. Pierce .....	" " "	Orlando, 1941
Southeast .....	Kenneth Phillips, Miami .....	" " "	Ft. Lauderdale, 1941
Florida Medical Association .....	Samuel A. Gordon, Marion .....	D. L. Cannon, Montgomery .....	Mobile, Ala., Apr. 15-17, 1941
Florida Medical Assn. of .....	J. C. Patterson, Cuthbert .....	E. D. Shanks, Atlanta .....	Macon, May 13-16, 1941
Florida College Phys.....	Louie M. Limbaugh, Jacksonville .....	Kenneth Phillips, Miami .....	Jacksonville, 1941
Florida Dental Society .....	I. W. Shields, Miami .....	W. P. Wood, Jr., Tampa .....	Hollywood, 1941
Florida Society of Derm. and Syph.....	Alan Brown, Jacksonville .....	Lauren M. Sompayrac, Jacksonville .....	Jacksonville, 1941
Florida Coast Medical Association .....	J. S. Stewart, Miami .....	J. Ralston Wells, Daytona Beach .....	
Florida Hospital Association .....	W. L. Shackelford, W. Palm Bch. .....	Mr. T. F. Alexander, Jacksonville .....	New Orleans, 1941
Florida Association of Industrial Surgeons .....	A. M. Bidwell, Tampa .....	T. H. Roberts, Lakeland .....	Jacksonville, 1941
Florida Postgraduate Course .....	Turner Z. Cason, Jacksonville .....	Chairman .....	Jacksonville, June 23-28, 1941
Florida Society of Ophthal. & Otol.....	H. Marshall Taylor, Jacksonville .....	Carl E. Dunaway, Miami .....	Jacksonville, 1941
Florida Psychiatric Society .....	Mrs. M. Stetson, St. Petersburg .....	Mrs. Phyllis Leonard, St. Augustine .....	Hollywood, Nov. 1941
Florida Public Health Association .....	Warren W. Quillian, Coral Gables .....	G. N. Leonard, Miami Beach .....	Orlando, December, 1941
Florida Radiological Society .....	L. J. Graves, Tallahassee .....	E. M. L'Engle, Jacksonville .....	Jacksonville, 1941
Florida Way Surgeons' Association .....	J. H. Lucinian, Miami .....	E. M. Hendricks, Ft. Lauderdale .....	Jacksonville, 1941
Florida Pharmaceutical Association .....	Leland F. Carlton, Tampa .....	W. C. Page, Cocoa .....	Jacksonville, 1941
Florida Tuberculosis & Health Assn.....	Mr. P. A. Penberthy, Tampa .....	Mr. R. K. Richards, Ft. Myers .....	Jacksonville, May, 1941
Florida Apalachicola Valley Med. Assn. ....	Mr. E. M. Newald, Orlando .....	Mrs. C. R. Whitaker, Eustis .....	Jacksonville, April 7, 8, 1941
Florida Coast Clinical Society .....	Frank K. Boland, Atlanta .....	Robert B. McIver, Jacksonville .....	Jacksonville, July 8-10, 1941
Florida Sec., Am. Cong. Phys. Ther.....	J. S. Turberville, Century .....	J. C. McSween, Pensacola .....	Pensacola, October, 1941
Florida Eastern Surgical Congress .....	E. C. MacCordy, St. Petersburg .....	Kenneth Phillips, Miami .....	Chattanooga, May, 1941
Florida Medical Association .....	Irvin Abell, Louisville .....	B. T. Beasley, Atlanta .....	Richmond, Va., Mar., 1941
Florida Apalachicola Valley Medical Society .....	Paul H. Ringer, Asheville .....	Mr. C. P. Loran, Birmingham .....	St. Louis, Nov., 1941
	T. H. Bates, Lake City .....	H. S. Howell, Lake City .....	



## COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	Amsle H. Lisenby, M.D. Panama City	William C. Roberts, M.D. Panama City		10		A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	W. P. Hixon, M. D. 24 W. Chase St. Pensacola	W. E. Tugwell, M.D. Box 1463 Pensacola	2nd Tuesday 8:00 P. M.	50	31	
	Walton-Okaloosa	A. G. Williams, M.D. Lakewood	B. B. Spires, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington-Holmes	N. J. Dawkins, M. D. Vernon	B. W. Dalton, M. D. Vernon		7	6	
	Franklin-Gulf	Thos. Meriwether, M.D. Wewahitchka	J. R. Norton, M.D. Fort St. Joe	3rd Thursday	7		A-2-'41 B. A. Wilkinson, M.D. Tallahassee
	Jackson *Calhoun	M. Q. Burns, M. D. Blountstown	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	10	8	
B	Leon-Gadsden-Liberty- Wakulla-Jefferson	Sterling E. Wilhott, M. D. Quincy	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	42	8	Northwest District (A) Tallahassee 1941
	Columbia *Baker, Hamilton	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	Thomas H. Bates, M. D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	10		B-3-'41 W. S. Nichols, M.D. Lake City
	Madison-Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		8		
	Taylor *Dixie, Lafayette	J. L. Weeks, M.D. Perry	John C. Ellis, M.D. Perry	Last Friday 8:00 P. M.	8		
	Alachua *Bradford, Gilchrist Union	Edwin H. Andrews, M.D. 134 N. Pleasant St. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	29	2	B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion *Levy	Eugene G. Peek, M. D. Commercial Bk. & Tr. Bldg. Ocala	Harry F. Watt, M. D. Box 146 Ocala	3rd Thursday 12:30 P. M.	25	17	
C	Pasco-Hernando- Citrus	William B. Moon, M. D. Crystal River	G. R. Creekenore, M.D. Brooksville	2nd Thursday 7:00 P. M.	15	11	North Central District (B) Gainesville 1941
	Duval *Clay, Nassau	S. R. Norris, M. D. Medical Arts Bldg. Jacksonville	F. Gordon King, M. D. 422 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	189	139	C-5-'41 R. B. McIver, M.D. Jacksonville
	St. Johns	A. C. Walkup, M. D. East Coast Hospital St. Augustine	Charles C. Grace, M. D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	11	10	N. E. District (C) St. Augustine 1941
	Putnam	C. M. Knight, M.D. Palatka	Allen P. Gurganious, M. D. Palatka	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	11		C-6-'42 Maximilian Stern, M.D. Daytona Beach
	Volusia *Flagler	J. R. Chandler, M. D. 110 S. Ridgewood Ave. Daytona Beach	R. L. Miller, M.D. 258 1/2 S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	41	14	
	Hillsborough	Robert G. Nelson, M. D. 712 Citizens Bank Bldg. Tampa	James S. Grable, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	109	52	D-7-'41 W. C. McConnell, M.D. St. Petersburg
D	Manatee	W. E. Wentzel, M.D. Box 245 Bradenton	Wm. D. Sugg, M. D. Bradenton Bank Bldg. Bradenton	3rd Tuesday 7:00 P. M.	14		
	Pinellas	Major N. W. Gable, M. C. 116th Field Artillery Camp Blanding	W. C. McConnell, M.D. 813 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	104	100%	
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	DeSoto-Hardee-High- lands-Charlotte- Glades	Hartley E. Boorum, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 23 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	15	D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	M. F. Johnson, M. D. Box 1266 Fort Myers	H. Quillian Jones, M.D. 18-20 Leon Bldg. Fort Myers	3rd Friday 7:30 P. M.	17	16	
	Polk	Bruce R. Tinkler, M. D. Lake Wales	S. Edgar Watson, M. D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	62		Southwest District (D) Bartow 1941
E	Brevard	T. C. Kenaston, M. D. 501 Delannoy Ave. Cocoa	I. K. Hicks, M.D. Melbourne	3rd Wednesday	11	9	E-9-'42 J. R. Chappell, M.D. Orlando
	Lake *Sumter	Marion B. O'Kelley, M.D. 203 First Natl. Bank Bldg. Leesburg	Clyde F. Bowie, M. D. 1112 W. Main St. Leesburg	1st Thursday 12:30 P. M.	17	1	
	Orange *Osceola	Frank D. Gray, M. D. 19 W. Washington St. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87	22	
	Seminole	Kenneth R. Bell, M. D. 208 Meisch Bldg. Sanford	Thomas F. McDaniel, M. D. Seminole County Bk. Bldg. Sanford	2nd Monday 7:00 P. M.	13		South Central District (E) Orlando 1941
	St. Lucie-Okeechobee- Indian River-Martin	Joseph B. Kollar, M. D. Vero Beach	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	18	15	E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	L. B. Elliston, M.D. 814 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlains, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	38		F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	Wilbur O. Arnold, M. D. Box 1785 W. Palm Beach	William E. Bippus, M. D. 601 Guaranty Bldg. W. Palm Beach	4th Monday 8:00 P. M.	67	40	S. E. District (F) Ft. Lauderdale 1941
	Dade	C. Larimore Perry, M. D. 525 N. E. 15th. St. Miami	Herbert Eichert, M.D. 538 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	328	64	F-12-'41 Kenneth Phillips, M.D. Miami
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	

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### CONTENTS

Absorption of Quinine into the Cerebrospinal Fluid of the Fetus in Utero, H. Marshall Taylor, M. D., Jacksonville, Lucien Dyrenforth, M. D., Jacksonville, and Cash B. Pollard, Ph.D., Gainesville	487
Herniation of the Intervertebral Disk J. G. Lyster, M. D., Jacksonville	491
Report of Two Cases of Branchial Cleft Fistulas Fred H. Bowen, M. D., Jacksonville	500
Peptic Ulcers Associated with Pituitary Tumors A. Judson Graves, M. D., Jacksonville, and Philip J. Hodes, M. D., Philadelphia	503
Jacksonville, the Convention City	508
Program of the Sixty-Eighth Annual Meeting	510
Seale Harris, M. D., Our Guest of Honor	518
Editorials: Notice to Delegates and Committee Chairmen; Old Age	519
The Technical Exhibit	520
Births and Deaths	522
State News Items	522
Component County Societies	524
Advertisers' Notes	526
Woman's Auxiliary	528
State and Sectional Meetings	530
Component Societies by Districts	531

#### NEXT SESSIONS

American Medical Association, Cleveland, June 2-6, 1941  
Florida Medical Association, Jacksonville, April 28, 29, 30, 1941  
Southern Medical Association, St. Louis, November, 1941

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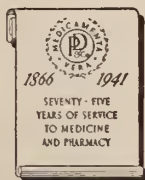
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## ABSORPTION OF QUININE INTO THE CEREBROSPINAL FLUID OF THE FETUS IN UTERO

H. Marshall Taylor, M. D.

Jacksonville

Lucien Y. Dyrenforth, M. D.

Jacksonville

and

Cash B. Pollard, Ph. D.

Gainesville

The implication of quinine as a main factor in the production of deafness in newborn infants is now an accepted entity, and investigation has tended to establish the status of a protoplasmic poison for quinine and its therapeutically employed salts. This pharmacologic characteristic exerts its influence directly upon the sense organs, and more especially so in the case of the delicate structures of the auditory apparatus, specifically the organ of Corti.

In our approach to the subject, it was argued that by reason of the deleterious action of quinine, in some cases, upon the ganglion cells of the cochlea and the endothelium of the small blood vessels of the internal ear, and because of its tendency to diminish the pressure in the endolymph, there is produced a series of events culminating in ischemia, anoxemia, lack of nutrition and eventual degeneration of the ganglion cells and the nerve fibers in the basal coil of the cochlea. All of these effects have been demonstrated, together with similar effects caused by certain other drugs, by competent investigators, whose works are recorded in the medical literature of the past two decades. It is possible that it may have etiologic significance in many cases of nerve deafness of mild degree. We have approached this subject from an angle somewhat different from that of the classic work of Mosher, reported in his 1937 presidential address before the American Otological Society, in which he discussed the effects of quinine on the vascular system of the auditory apparatus. Our efforts have been centered only upon the cerebrospinal fluid.

Upon the thesis that quinine is capable of causing harmful changes in the delicate

cytology and finely adjusted mechanism of hearing in the newborn, we first assumed that to be responsible for such effects the drug must be present in the nourishing or trophic humors of the auditory apparatus itself; that the presence of quinine should be demonstrable, unless its concentration be too extremely low; and that its presence in the cerebrospinal fluid of the newborn infant is *a priori* evidence of its contact with the finer structures of the organ of hearing. This last assumption, we realize, is not without its serious lack of experimental foundation in fact. But, as Taylor stated, the presence of quinine in the cerebrospinal fluid suggests an important analogy between the stria vascularis, which elaborates the endolymph, and the choroid plexus, which is responsible for the secretion of the cerebrospinal fluid. In such a manner the hair cells of the organ of Corti are bathed in endolymph containing quinine.

In our first attempts to bring evidence to bear upon the relationship of the therapeutic use of quinine to deafness, two of us showed that the alkaloid was present in the cerebrospinal fluid of women in whom labor had been induced by this means. Other investigators revealed that quinine can be detected in the other body fluids and excreta. It was then decided that the establishment of the presence of the drug in the cerebrospinal fluid of an infant delivered of a mother treated with quinine would give strong evidence of the implication of the substance in the causation of the various disorders attributed to it, including not only deafness, but also amblyopia.

Finally, the basis for this reasoning is threefold: (1) the known permeability of the fetal-maternal membranes for crystalloid substances, (2) the finding by various investigators of quinine and other drugs in the blood serum and excreta of animals following their administration to preparturient mothers, and (3) the unmistakable evidence, both clinical and histologic, of damage to the internal ear of such fetuses. Then, too, the symptoms of the effect of quinine in susceptible persons may be cited as evidence that upon its absorption into the fetal circulation, the extremely delicate auditory apparatus gives similar response.

For the work undertaken at this time with prenatal cases the mothers were selected for their general normal tolerance of quinine. The obstetric and pediatric services of the Duval County Hospital, Jacksonville, kindly consented to cooperate in this undertaking, in order to control the administration of the drug and to perform the subsequent lumbar punctures. Patients were chosen who were preferably primiparae because of the obvious difficulty in getting enough concentration of the quinine in the short time usually experienced in deliveries of multiparae, especially with the added effects of quinine.

At the first indication of the onset of labor the subjects were given daily doses of quinine bisulphate, orally, in amounts of 5 grains of the salt three or four times daily. One patient received a total of 120 grains, but the amounts varied from that to 30 grains. In fact, after the first 5 cases had been treated, it was found that even low intakes of 30 grains were sufficient to produce positive results in the fetal cerebrospinal fluid and urine. These figures are not out of proportion with the dosages obtained in the attempt to induce labor routinely. Castor oil was, of course, not administered because the desired effect was not primarily to precipitate delivery, or even labor.

Our observations are based upon the examination of 7 cases in which the mothers were thus treated previous to active labor and delivery. The results obtained substantiate the correctness of our theory of the presence in the fetal cerebrospinal fluid of quinine derived from the maternal circulation, and they likewise corroborate the reports of investigators regarding its presence in the urine. The work entailed was beset with the many unforeseen difficulties that so often perplex investigators. The final successful demonstrations were accomplished only recently, although evidence of the presence of the drug in the specimens first analyzed was substantially, but not conclusively, obtained.

#### CLINICAL PROCEDURES

Forty-eight hours after birth each infant was carefully subjected to lumbar puncture. From 7 to 10 cc. of cerebrospinal fluid was obtained, and this fluid was then tested for the presence of quinine. Only one withdrawal from each child was made. In the last 2 of the 7 cases, specimens of urine were obtained, and these

also were tested for quinine. At this time no attempts were made to further the demonstration of the drug in the mothers.

#### CHEMICAL PROCEDURES

Considerable time was spent in the determination of a sure means of detecting quinine in the specimens. A microchemical method was finally worked out which, after many trials, proved sufficient to detect the alkaloid in experimentally inoculated normal cerebrospinal fluid. By dissolving known quantities of quinine bisulphate in normal fluid obtained in routine laboratory procedure, tests were made to determine the sensitivity of crystallizing agents as well as of the several color reactions in serial dilutions covering a wide range. At first this was considered a necessary expedient because of the small amounts anticipated in the actual test specimens. But later refinements in the methods evolved showed that concentrations attained are adequate for demonstration of crystalline precipitates, at least in the specimens of urine, and for obtaining color reactions in the extracts of cerebrospinal fluid. Up to the present, we have been definitely successful in getting photographable crystalline precipitates in only two of the specimens of urine, and positive color reactions in two specimens of the cerebrospinal fluid; but these were in cases receiving a minimum intake of quinine. It is anticipated that from now on, with the present more adequate procedures, examination of cerebrospinal fluid containing higher concentrations of the drug will disclose the presence of incontrovertible crystal patterns.

In the earlier attempts to separate the alkaloid from cerebrospinal fluid, the method was briefly as follows: For each cubic centimeter of the specimen 0.25 Gm. of ammonium sulphate was added, and the solution was brought to a pH of 8 to 9 with ammonium hydroxide. This solution was twice extracted with ethyl acetate, and several extractions with a chloroform-ether mixture followed. The solvent was then evaporated and the residue taken up with a small amount of chloroform, which was made alkaline and placed in a microseparatory funnel. It was then centrifuged and separated, and the aqueous layer was discarded. This process was repeated, and then the chloroform solution was acidified, thereby removing the alkaloids that are acid-soluble but alkali-insoluble. Thereafter, the acid solution was extracted with ethyl



acetate and the chloroform-ether mixture, and the solvent was discarded. The acid solution was alkalinized and shaken with ethyl acetate, and the solvent layer containing the residue of quinine was evaporated.

It was early evident that a troublesome gel formation resulted as soon as the first extracting substances were added to the alkaline solution of ammonium sulphate. The gel continued to persist and offered a perplexing difficulty since in it the quinine is dispersed in small amounts in a buffered protein medium that defied all efforts to break it up permanently. Until the recent modification, which suppressed formation of this gel, the procedure was to break it up mechanically, extract it while thus dispersed and repeat the procedure indefinitely, in the hope that multiple extractions would subsequently contain enough of the residue to answer to final tests.

At this point it was noted with interest that in some of the experimental fluids from syphilitic patients there was, in the final evaporations, an oily residue which defied crystallization and further evaporation. This condition was not noted in the fetal fluids, nor in fluids from non-syphilitic persons. Its significance offers another problem which we are investigating.

The results obtained by this procedure were not conclusive of the presence of quinine. The evidently low concentration of the alkaloid in the residue was insufficient to produce conclusive color tests, although these tests were slightly positive in a few instances. Furthermore, there was no hope of getting crystal patterns such as were obtained in the experimental control fluids. It was established, however, that the quinine present in the fetal cerebrospinal fluid was in a higher order of dilution, and that the need was evident for a refinement of sensitivity tests adequate for detection by means of crystallization rather than by color reaction. Thus it became evident that concentrations of a minute order are adequate for the production of pathologic changes in the fetal ear.

Upon getting the final residue as described, the quinine was crystallized. The characteristic crystal pattern was obtained by using a 2 per cent solution of potassium chromate as a crystallizing agent. This process is one requiring considerable attention, due to the tendency for the formation of potassium chromate salts,

which mask the desired pattern, especially in the effort to secure photomicrographs. The structures successfully photographed were formed from extractions of normal cerebrospinal fluid treated with quinine in a dilution of 1:10,000, which by this method marks the upper limit of sensitivity in these tests.

In three of the four cases in which this procedure was carried out, it was possible by combining the extracts to obtain definite, but not completely conclusive, color reactions for the positive presence of quinine in the fluid through the use of a modified thalleoquin procedure. This procedure indicated a possible order of concentration in the original specimens of 1:2,000,000. The color reactions, which, according to our preliminary observations, are overrated by their proponents as to sensitivity, were obtained in probable dilutions of 1:25,000, still too great for the present method of conclusive isolation. In terms of quinine alkaloid, the amount dealt with under these circumstances was substantially smaller, considering the difference in the amount of the bisulphate salt administered. That is to say, the greater molecular weight of the bisulphate produced correspondingly smaller quantities of extractable quinine alkaloid.

More recently we devised the following procedure, by means of which we successfully produced crystal patterns capable of being photographed.

*Urine.* To 20 cc. of urine from one infant was added 5 Gm. of ammonium sulphate crystals and ammonium hydroxide to a pH of 8 to 9. The sample was divided into four equal parts, and with ether added, each was then shaken for from five to ten minutes in a graduated centrifuge tube. The tubes were then centrifuged and the ether layers withdrawn and evaporated on the steam bath. Four such extractions were made and the extracts combined. The ether layer was green in color, and upon evaporation there remained a stringy green mass. The residue was then taken up with tenth normal acetic acid, shaken and filtered, and the residue discarded. The filtrate, which is clear and practically colorless, was made alkaline with ammonium hydroxide and extracted four times with ether. The ether extracts were evaporated and the residue taken up with a few drops of hundredth normal acetic acid. Dis-

tilled water was added to make a total volume of 5 cc. and this solution was divided into two equal parts. One 2.5 cc. portion responded positively to a modification of Abenson's erythroquinine test. The other portion was made alkaline with ammonium hydroxide and extracted four times with ether, which was then evaporated, and the resulting residue was taken up with 0.5 cc. of dilute sulphuric acid. Three drops of this acid solution, when treated with a drop of a 2 per cent solution of potassium chromate, gave characteristic crystal patterns showing the presence of quinine.

*Cerebrospinal Fluid.* To 8 cc. of cerebrospinal fluid from the same infant, 2 Gm. of ammonium sulphate was added, and the solution was made alkaline with ammonium hydroxide. It was then extracted four times with ether, and the extracts were evaporated. The residue was taken up with a few drops of hundredth normal acetic acid, and distilled water was added to bring the volume to 1 cc. Abenson's erythroquinine test was positive on this preparation.

By comparison with solution of known strength, the concentration of quinine in the sample appeared to be from 1:250,000 to 1:300,000. Since the test solution was eight times as concentrated as the cerebrospinal fluid, the approximate concentration of quinine in the cerebrospinal fluid was 1:2,000,000.

The decision to use ether as the solvent was made after the troublesome gel formation presented a difficulty that proved to be insurmountable. Although it is of inferior ability over chloroform, there results finally a sufficient concentration to produce crystals in the urine and a positive color test in the cerebrospinal fluid. In the longer method there was obviously a serious loss of material.

#### CONCLUSIONS AND SUMMARY

The harmful effects of certain drugs on the auditory mechanism are no better characterized than in the case of quinine. Because of the wide use of this alkaloid in obstetrics, and because of its indiscriminate use in many localities as an abortifacient, an investigation of its presence in the circulating cerebrospinal fluid was undertaken.

Quinine was detected in the cerebrospinal fluid and urine of at least two infants delivered of mothers receiving oxytocic doses of quinine bisulphate, and it is anticipated that higher

concentrations of the drug will produce similar conclusive results with regularity. The evidence presented is scanty, but it is felt that a beginning has been made and that an important piece of evidence has been discovered to the effect that quinine used indiscriminately as an oxytocic drug may have malign influences upon the fetal ear. The importance of such knowledge, if sound and true, to the future of the artificial induction of labor by means of quinine has been discussed, and a resume of procedures has been given.

We desire to express appreciation for the facilities placed at our disposal through the kindness of President John J. Tigert and Dean Townes R. Leigh of the University of Florida, and the Duval County Hospital in Jacksonville.

#### DISCUSSION

*Dr. S. B. Forbes, Tampa:*

The forging of this new link in the chain of evidence against the administration of quinine to the pregnant woman affords me genuine satisfaction, and I congratulate Doctor Taylor, Doctor Dyrenforth and Doctor Pollard on their notable achievement. The chemical work alone must have entailed a tremendous amount of study and effort, particularly in dealing with the small amounts of cerebrospinal fluid obtainable.

The establishment of the presence of quinine in the cerebrospinal fluid of the fetus in utero is of very definite significance in those cases in which the drug is administered in relatively large doses, primarily as an abortifacient and also as an oxytocic over a brief period of from twenty-four to forty-eight hours prior to delivery. Certainly it is potentially significant when it is given even in very small doses over a period of several weeks with a view to insuring an easier and shorter labor for the pregnant mother and when administered in the treatment of concurrent disease. It is an established fact that the spiral ganglion in the human embryo is recognized between the sixth and eighth weeks and that by the ninth week the cochlear nerve is definitely laid down and has its main characteristics. About this period abortifacients are frequently used, one commonly resorted to being quinine.

There is available a considerable amount of proof of the transmission of quinine from the maternal circulation through the placenta into the fetal tissues, but it is based almost exclusively on animal experimentation. Benda demonstrated the increased permeability of the meninges in the later weeks of pregnancy and during labor. In a human fetus of four and one-half months quinine was found in the blood and organs examined, including the brain, forty hours after the mother had been given 1.5 Gm. of quinine sulphate.

The perilymphatic cavity of the internal ear communicates with the subarachnoid space through the aqueductus cochleae, and the perilymph therefore becomes identical with the cerebrospinal fluid. Quinine, undoubtedly a protoplasmic poison, would thus have direct access to the internal ear by this route. Also, it is not reasonable to assume that the stria vascularis, which secretes the endolymph, may be analogous to the choroid plexus, which secretes the cerebrospinal fluid, as Doctor Taylor previously suggested? In that event, quinine may find its way into the ductus endolymphaticus and bathe the hair cells of the organ of Corti.

Recently I reported four cases of so-called congenital deafness in children whose mothers had been given

quinine during their pregnancies. In two of these cases amblyopia was also present. Quinine had been administered to two of the mothers over a period of several weeks in the treatment of malaria; one had used the drug in massive doses as an abortifacient; and the attending physician had given the fourth mother repeated doses of the drug at hourly intervals to induce labor. Similar cases are being reported with increasing frequency.

To see these cases professionally and to recognize the needless cause of the distressing handicap of these little patients is to appreciate doubly the altruistic work of Doctor Taylor as he has pioneered in this field. May he, Doctor Dyrenforth and Doctor Pollard, who have together made this latest valuable contribution, carry on their research, both pathologic and clinical, until every skeptic is convinced that quinine should not be administered to the pregnant woman.

*Dr. Henry E. Palmer, Tallahassee:*

I approach this subject with a great deal of hesitancy because of the findings of these well known specialists, who have presented this subject in a fine way.

I want to present my side, or rather that of a general practitioner of many years' experience, who hails from a district that is said to be one of the most malarious in Florida. We have no remedy for the control of malaria except quinine. Pregnancy certainly does not prevent patients from contracting malarial fever. I can truthfully say that in all my experience I have never seen any ill results from giving quinine in these conditions, and I give it in rather large doses, 5 grains every four hours until the patient has missed the chill or fever. I have never had an instance in which it brought on labor or abortion. When I have used quinine in cases of labor, it has been after the pains had begun and were rather slow and inefficient.

I am very glad these physicians are making this investigation, and I hope they will continue it. If what they say is correct, then I suppose we will have to get a substitute for quinine.

*Dr. E. Bryant Woods, Tampa:*

May I make a few remarks relative to minimum doses? Dr. Taylor and his coworkers reported that something like 40 grains of quinine was used in their experimental work. I do not believe any sane obstetrician has used that much for the induction of labor except in rare instances. We have thought that all oxytocic agents were dangerous. We went through that period when pituitrin was used in large doses. But that does not mean that the use of pituitrin given in a safe manner is to be stopped. We want to remember that there are many instances in which certain oxytocic agents are of definite value and can be given with good results. It has been stated that quinine produces abortions, but I doubt the reliability of this statement, except in instances of irritable uteri. If it does, there would be many more abortions produced by the laity than we find at the present time.

At most hospitals where the induction of labor is practiced routinely, we find a maximum of 20 grains of quinine used. Certainly I do not believe we are going to find that a maximum administration of 20 grains in a period of two or more hours is going to produce dangerous complications.

I think that Dr. Taylor and his coworkers are to be complimented on this research, and I hope that they will continue their work. To say, however, that no quinine is to be used in obstetrics would, I believe, be a great detriment to many general practitioners who have to work where they have neither the facilities of hospitalization nor the opportunity for as close an observation of their patients as they should. They can give four 5 grain quinine pills at intervals of thirty minutes or an hour and know that the patient will get no more; and the patient does not even have to know what she is getting. We must remember that moderation, discretion and judgment make for good clinical use of drugs. I thank you.

## HERNIATION OF THE INTERVERTEBRAL DISK

J. G. Lyerly, M. D.  
Jacksonville

Herniation of the intervertebral disk as the cause of pain in the low back along the course of the sciatic nerve has in the last few years been found to play a prominent part in causing sciatica. It is not the sole cause of this syndrome, but one of many which may give a similar picture. A careful study of the cases from the clinical and neurologic standpoint will enable one to pick out the cases of herniated disk in the majority of instances. A thorough examination should be made to rule out bone or joint pathology of the spine or pelvis as well as intradural or extraspinal tumors involving the nerves in their pathways.

The subject has been abundantly discussed in the recent literature. In 1920 Dandy<sup>1</sup> reported two cases of bilateral sciatica, worse on one side, due to chondroma of traumatic origin. In 1930 Bucy and Bailey<sup>2</sup> reported a case of chondroma of the intervertebral disk of traumatic nature. These were no doubt cases of large herniation of the intervertebral disk and probably not of new growth origin. Our present conception of the syndrome of sciatica caused by a herniation of the intervertebral disk was called to our attention by Mixter and his associates<sup>3</sup>. Since then numerous articles have been written, notably by Peet and Echols<sup>4</sup>, Ayres<sup>5</sup>, Love and his co-workers<sup>6</sup>, Barr and his associates<sup>7</sup>, Fincher and Walker<sup>8</sup>, Naffziger, Inman and Saunders<sup>9</sup>, Flothow<sup>10</sup>, Walsh and Love<sup>11</sup>, Sheldon, Carmichael and Adson<sup>12</sup>, Semmes<sup>13</sup>, Adson<sup>14</sup>, Craig and Walsh<sup>15</sup>, Spurling and Bradford<sup>16</sup>, and others. Roentgenologic technic has been described by Hampton and Robinson<sup>17</sup>, Bell and Spurling<sup>18</sup>, and Chamberlain and Young<sup>19</sup>. The location of the herniated disk is in the lower lumbar region, more frequently between the fourth and fifth lumbar vertebrae, and the fifth lumbar vertebra and the sacrum. However, it occurs in the third lumbar interspace or higher. It is in the lower lumbar region that the spine probably is subject to the most strain, and there, too, the ligamentous structures are easily injured.

The intervertebral disk is composed of three types of structure: the nucleus pulposus, the

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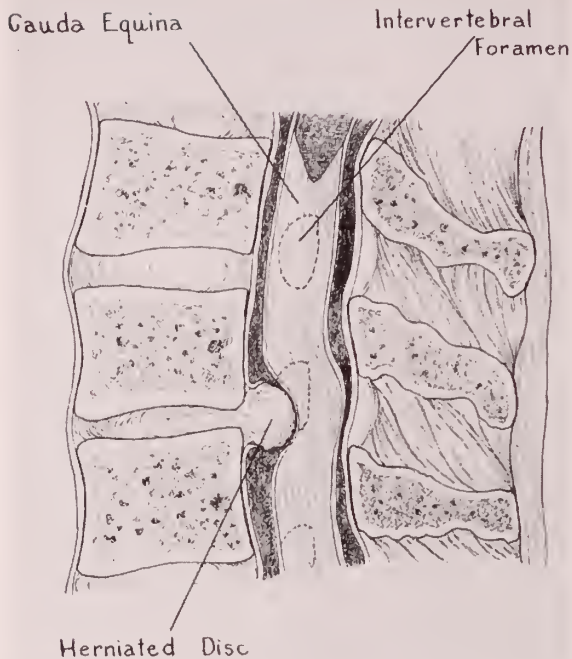


Fig. 1. Rupture of the annulus fibrosus allows herniation of the nucleus pulposus into the spinal canal, making pressure on adjacent nerve roots.

fibrocartilaginous disk, and the capsule called the annulus fibrosus. The disk most frequently becomes herniated at the posterolateral aspect, which is the weakest point of the ligament. Before the herniation occurs, the annular ligament is weakened or ruptured by a strain when the spine is flexed, laterally bent or twisted, as frequently happens in heavy lifting or in falling. The patient gives a history of feeling something snap or suddenly give way, associated with pain in the lower back. If he continues about his business, after a week or more there may occur a herniation of the soft portion of the disk (*fig. 1*) and sciatic pain from pressure on the nerve root going to the adjacent intervertebral foramen or the proximal roots of the cauda equina. The pain along the sciatic nerve is nearly always on one side, although at the beginning there may be a little pain on the opposite side. It is possible for the ligament to be weakened from disease, in which case there would be no history of trauma. The herniation could take place slowly without a history of injury, an occurrence that may explain some of the cases in which the condition comes on insidiously.

From the clinical standpoint the history and neurologic findings are most important in mak-

ing the diagnosis. There is usually a history of low back pain brought on suddenly by strain or lifting a heavy object in a bent forward position. The pain may be localized in the lower back on both sides, but after a week or more it settles on one side and radiates down the back of the thigh and calf to the outer side of the ankle. Since the fourth or fifth lumbar interspace is most frequently involved, the pain and paresthesias travel along the course of that particular nerve root. Should the herniation occur in the third lumbar interspace, the pain would be at a higher level and around the front of the thigh. The acts of coughing, sneezing, straining, or jarring the chair on which the patient is sitting may aggravate the protrusion of the disk and result in a severe sharp shooting pain along the course of the affected nerve. A sensory disturbance of numbness and tingling on the outer aspect of the ankle and foot may be felt, but little or no loss may be found on actual tests.

In the findings there may be a stiff lumbar spine with obliteration of the normal lordosis. It is not unusual to find a slight kyphosis with listing of the lumbar spine to the opposite side owing to muscle spasm. There may be a flattening of the gluteal fold with lifting of the pelvis on the same side. Tenderness on deep pressure over the affected interspace lateral to the midline with pain radiating along the sciatic nerve to the foot is a fairly constant finding. The pain is aggravated by laterally bending the lumbar spine to the affected side and by extension, which may tend to increase the herniation. There is impairment of straight leg raising; also positive Lasègue and Kernig signs are present. A diminished or absent achilles tendon reflex may occur with herniation at the fifth lumbar interspace. The knee jerk reflex is usually diminished when the herniation is at the third lumbar interspace while neither may be affected when it is at the fourth. The sciatic pain is reproduced on bilateral jugular compression, a sign described by Naffziger, Inman and Saunders<sup>9</sup> for spinal block in tumor of the spinal cord. The pain may be reproduced by the insertion of a lumbar puncture needle at the affected level when no fluid may be obtained and a higher interspace must be used. A large herniation may make considerable pressure on the dural sac so that a partial Queckenstedt sign

may be observed, but usually this test gives negative results. The findings pertaining to the spinal fluid are otherwise of little importance except that in the majority of cases the total protein content is increased. The roentgen findings may be suggestive when there is a narrowing of the intervertebral space suggesting a loss of the disk substance. It is not unusual for roentgen examination to reveal a straight lumbar spine with obliteration of the normal lordosis.

From the signs and symptoms the neurosurgeon is coming to realize that the syndrome of the dislocated disk is so typical that it can be recognized and the patient operated on without further diagnostic aid in a large number of cases. In the doubtful case, or when a consultant may be skeptical, it is possible to prove the presence of a herniated disk on roentgen examination by the use of a suitable contrast medium in the spinal canal. Lipiodol gives a clear cut picture and is used in amounts of from 3 to 5 cc. The objection to it is the fact that it is a foreign substance which remains in the spinal canal indefinitely unless it is removed at operation. In the majority of cases the lipiodol remains in the sacral sac where it is harmless and causes no symptoms. The neurosurgeon hesitates to use lipiodol unless it is fairly certain that he is to operate as at operation the iodized oil can be removed.

The use of air or oxygen in the spinal canal for the purpose of making spinograms is becoming more popular. Oxygen is preferable since it is more quickly absorbed and the discomfort is of shorter duration. In order to keep the gas in the lumbar region, the patient must be kept in the Trendelenburg position while the pictures are made. Adequate roentgenologic technic will give a roentgenogram of sufficient contrast for diagnosis in a fair number of cases. The use of the oxygen spinogram and the typical history and symptoms of the patient will be sufficient to make the diagnosis in the majority of cases. While lipiodol may be highly diagnostic, its use is not without error as it, too, may fail to disclose a herniated disk and may occasionally give one a false impression of an obstructive pathologic process.

The treatment of the herniated disk consists of operative removal by partial hemilaminectomy. The exposure is made by stripping the muscles from the spinous processes and the

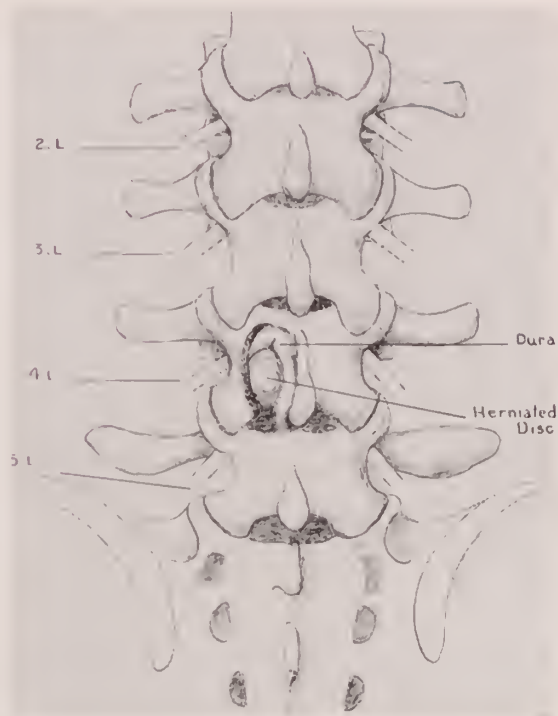


Fig. 2. Showing part of one lamina removed to disclose the herniated disk and remove it.

laminae on one side and by removal of part of one lamina (fig. 2). It is not unusual for a thickening of the ligamentum flavum and a greatly swollen nerve root to be found. The herniated portion of the disk may compress the dural sac towards the opposite side and have the swollen nerve root riding over it. When the capsule of the herniated disk is excised, the soft semigelatinous mass extrudes. The herniated portion of fibrocartilage is usually removed in several pieces by the use of a suitable grasping forceps. It is not necessary to open the dura in the majority of cases unless one wishes to drain the iodized oil which has been previously injected. After the wound has been adequately sutured and has healed, the back is probably as strong as it would be if the operation had not occurred, since very little bone has been removed. It is not necessary in most cases that a bone graft operation should be done.

It is not unusual for the patient to be discharged from the hospital in ten days or two weeks. One patient returned to work in about three weeks following the operation. It is best to instruct patients not to do any heavy lifting or subject the back to severe strain for a period of three months.

Six illustrative cases are presented.



## REPORT OF CASES

Case 1.—A white girl, a student aged 14, was first seen in Riverside Hospital on Sept. 3, 1938. She had fallen on her back and hip while playing football in February and had had severe pain and weakness in the hip and leg on the right side, which had soon subsided. Late in June she had suffered from a dull aching pain on that side, running down the calf and foot, which grew worse when she was in bed at night. She had experienced a sharp shooting pain on sneezing, and for two weeks prior to admission there had been a numbness and a tingling sensation in the right foot. She thought the right leg was weaker than the left.

The patient was large for her age. Neurologic examination revealed that the muscles of the calf of the right leg were slightly less in circumference than those of the left, and that there was impairment of straight leg raising on the right side. A lumbar kyphosis was present with a listing to the left, but without localized tenderness. The achilles tendon reflex was absent on the right side. The clinical diagnosis was a displaced intervertebral disk opposite the fourth or fifth lumbar interspace on the right side.

Spinal puncture showed the fluid was under normal pressure. Queckenstedt's test gave negative results as did examination of the blood and globulin. Fluoroscopic examination and roentgenograms of the spine, made after the injection of 3 cc. of lipiodol, revealed a partial blockage between the twelfth dorsal and first lumbar vertebrae, more pronounced on the right side. The diagnosis was changed to intervertebral disk or tumor opposite the twelfth dorsal intervertebral space on the right.

Laminectomy was done at this level on September 9, with negative findings for a dislocated disk or tumor, or other localized pathology. The patient recovered very well from this operation, but there was no improvement in the neurologic symptoms and signs. The same symptoms persisted, and the signs became more pronounced.

On December 15 she was operated on again on the basis of the original diagnosis of dislocated intervertebral disk opposite the fifth lumbar interspace on the right side. The dislocated disk was found between the fourth and fifth lumbar vertebrae on that side and was removed completely. She showed immediate improvement following this second operation and was able to walk when discharged from the hospital fifteen days later. The curvature of the spine disappeared, and she was soon completely recovered.

This case demonstrates the importance of the clinical history and neurologic findings in making the diagnosis. The roentgen studies made with lipiodol were inaccurate and misleading, and in consequence the first operation was misdirected and failed to uncover the cause of the trouble. Since the patient was not relieved, a second operation was performed on the basis of the neurologic findings. The herniated disk was found and removed with complete relief of all symptoms.

In the next case the patient was likewise operated on from the neurologic findings alone.

Case 2.—Mrs. G. C., Jr., a white housewife aged 28, referred by Dr. J. A. Beals, complained on June 28, 1939, of pain in the lower back and down the left leg with onset twenty months previously when she got out of bed following an attack of influenza. One week before she had gone to bed she had stepped on a cartridge and had seemed to injure the left foot. Getting out of bed after the attack of influenza, she had noticed pain in the lower back, and in the hip and knee on the left side, which extended to the ankle and foot. She had experienced severe shooting pains across the lower back on coughing and sneezing. Six months prior to examination she had

noticed some wasting of the muscles of the left leg and six months after the onset she had started having cramps in the muscles of that leg associated with intense pain, five severe drawing spells of this kind having occurred. She complained of difficulty in walking with the heel to the floor and found it difficult to sleep at night on a soft bed, preferring to sleep on a hard mattress with boards under it.

The patient was a rather thin but active young woman. Neurologic examination of the lower extremities revealed that she held the left leg flexed slightly at the thigh and at the knee. The muscles of the calf of this leg appeared to be smaller than those of the right leg, but there was very little difference on actual measurement. She had severe pain on straight leg raising on the left side. There was slight impairment to cotton touch and to hot and cold on the outer side of the left ankle. She stood with the hip elevated on the left side, and there was flattening of the gluteal fold on this side. The lumbar spine was stiff, and there was slight curvature to the right with motion limited in all directions. There was tenderness in the region of the lower lumbar transverse processes on the left side, and the achilles tendon reflex was absent on this side.

A diagnosis of herniated intervertebral disk on the left side opposite the fourth or fifth lumbar interspace was made, and on July 9 the patient was operated on. Through a median incision the muscles were separated from the laminae and spinous processes of the fourth and fifth lumbar vertebrae on the left side. The lower half of the fifth lumbar lamina and a hypertrophic ligamentum flavum were removed. The herniated disk was found between the fifth lumbar vertebra and the sacrum, stretching the fifth lumbar root above and outward and the dural sac inward towards the midline. The herniated disk was removed completely. It was pulled from across the midline, but the major portion was on the left side.

Immediately after the operation the patient stated that the pain in the left leg had greatly decreased and the sharp shooting pains had ceased. She was sitting up in a chair on the eighth day and was discharged from the hospital on the ninth day. The spasm in the left leg had almost entirely disappeared, and she was able to walk with little difficulty. A number of visits to the office over a period of several months and a recent communication indicate that the improvement has continued with no recurrence of the sciatic pain.

Case 3.—A. P. C., a white insurance agent aged 46, complained of pain in the right leg when first seen on April 13, 1939. He had injured his back in the lumbar region playing football at the age of 16, and thereafter that region had always been painful when he contracted a cold.

In getting up in the dark on the night of Dec. 23, 1938, he had bumped the shin of his right leg against the dresser drawer, receiving an abrasion of the skin, and there had developed immediately a severe pain running through the leg up the back of the thigh to the lower back. He had had severe pain in this leg ever since. Roentgenograms of the leg had shown no fracture, and he had been told by physicians that he had sciatica. The pain extended up the back of the leg to the sacro-iliac region on the right side and to the ankle on the inner side with numbness in the leg below and a little above the knee. He had not noticed weakness. He had pain on coughing, sneezing and straining and had to change his position frequently at night as he could not stay in one position very long.

On neurologic examination it was observed that the patient was well nourished and developed, and of the athletic type. His blood pressure was 104 systolic and 70 diastolic. There was a slight lateral curvature of the spine in the lumbar region with listing to the left. Also, rigidity and limitation of motion of the lumbar spine were present with definite paravertebral tenderness on the right side in the lower lumbar region. In the lower extremities there was slight atrophy of the quadriceps femoris group of muscles on the right side; otherwise the motor power was good and equal in both legs. On sensory examination, no anesthesia could be demonstrated



to cotton touch, pin prick, hot and cold, position sense and vibratory sense. There was definite hyperesthesia to pin prick over the right side from about the eleventh dorsal to the second lumbar segment. Straight leg raising on the right side produced definite and characteristic pain. Bilateral jugular compression caused severe pain and tingling down the right leg. Except that the knee jerk reflex on the right side was absent and the lower abdominal reflex was less active on that side than on the left, all reflexes were normal.

The patient entered St. Vincent's Hospital on May 4. On spinal puncture, the fluid was clear and colorless, but the Queckenstedt test gave evidence of a partial block. Lipiodol was injected through the needle in the lumbar region. Fluoroscopic and roentgen studies, made by Dr. W. M. Shaw, showed a filling defect with compression of the dural sac opposite the intervertebral space in the right anterolateral aspect of the canal between the third and fourth lumbar vertebrae (*fig. 3*). Examination of the spinal fluid revealed a negative cell count and a protein content of 55 mg. per 100 cc.

A diagnosis of dislocated intervertebral disk was made. At operation on May 6, a right unilateral exposure of the laminae of the third and fourth lumbar vertebrae was



*Fig. 3. Lipiodol study in Case 3. Obstructive lesion at right third lumbar interspace.*



*Fig. 4. Lipiodol study. Case 4. Filling defect opposite right fifth lumbar interspace.*

made, and parts of the third and fourth laminae were removed on the right side. An extradural mass, cartilaginous and firm, bulged from the intervertebral space on this side; it was compressing the third lumbar root and the adjacent roots of the cauda equina. This mass, roughly 1 1/2 by 2 cm. in size, was completely removed.

The patient made an uneventful recovery. He had immediate relief from pain, was able to sit up in a week, and was walking when discharged from the hospital twelve days after the operation. The knee jerk reflex on the right side had returned. Letters from him and reports from his physician state that he has made a complete recovery.

Case 4.—O. C., a white truck driver aged 26, referred by Dr. A. C. Oberdorfer, consulted me on June 7, 1939, because of pain in the lower back and down the right leg. On April 24, while stooping over to lift a case of milk weighing about 50 pounds, he had felt a severe pain shoot through the lower back when he straightened up. About one week later there had been pain down the left leg for one day, and then in the right leg, where it had remained ever since. The pain went down the back of the right leg and thigh, and there was a numbness on the outer aspect of the right foot. There had been neither pain nor numbness in the left leg since the second week. On coughing and sneezing he had severe pain down the right leg. He had resumed work two weeks previously but was unable to continue on account of the pain. A spinal puncture had been done by Dr. Oberdorfer, and lipiodol had been injected one week before the patient came under my observation.

Roentgen studies of the spine, made by Dr. J. A. Beals after the injection of the lipiodol, showed an obstructive lesion in the right lumbar region between the fifth lumbar vertebra and the sacrum (*fig. 4*). Studies pertaining to the spinal fluid showed a negative Queckenstedt sign, a cell count of 2 and a total protein content of 44 mg. per 100 cc.

The patient was well developed and well nourished. Neurologic examination revealed an absence of the normal lumbar lordosis with limitation of motion in all directions. A slight lumbar scoliosis to the left, severe pain on straight leg raising on the right side, slight impairment to hot and cold on the outer aspect of the right ankle and severe tenderness on palpation over the fifth lumbar spinous process and over the region of the transverse process on the right side were present. The reflexes were normal except for absence of the achilles tendon reflex on the right side.

Following a diagnosis of herniated intervertebral disk on the fifth lumbar interspace on the right side, the patient was operated upon on June 9. Through a median incision the muscles were separated from the spinous processes and the laminae on the right side centering over the fifth lumbar vertebra. The lower half of the fifth lumbar lamina was removed over this side. The herniated intervertebral disk was stretching the fifth lumbar root over it, and also compressing the dural sac towards the left. The capsule of the disk was split and the herniated portion removed completely.

The next day after the operation the patient stated that the pain down the right leg had disappeared. He was walking on the eleventh postoperative day when he was discharged from the hospital. On the eighteenth postoperative day he was given permission to return to work and has since been working regularly.

Case 5.—E. B. R., a white truck driver aged 43, referred by Dr. W. G. Harris, was examined in St. Luke's Hospital on Jan. 26, 1940. His chief complaint was pain down the back of the hip and leg on the right side and in the lower back.

He had been in good health until Dec. 9, 1939. At that time, while lifting an object weighing several hundred pounds, he had felt a severe pain in the lower back when the weight suddenly shifted. The pain had at first been in the hip on the right side and in the lower back. He had continued working for several days, but it had become worse, extending down the hip and the right leg. Since then it had gradually grown worse and was sharp shooting in character, extending down the back of the right leg to the outer aspect of the calf and ankle. It was aggravated on coughing and sneezing. He was continually shifting his position in bed and had difficulty in sleeping. The pain was worse when he lay on the right side. He had noticed no numbness in the leg or foot.

Neurologic examination revealed a well nourished and developed man, weighing about 190 pounds, with the muscles of the lower extremities well developed and showing no atrophy. The patient lay in bed, preferably on the left side with the right leg flexed at the hip and knee. There was severe pain on straight leg raising on the right side, and the Kernig sign was positive on this side. The achilles tendon reflex was absent on both sides, but on the right could be obtained on reinforcement.

The patient stood with the spine in the upper lumbar region tilted to the left. There was flattening of the gluteal fold on the right side and rigidity of the lumbar spine. Palpation disclosed tenderness over the transverse process of the fourth and fifth lumbar vertebrae on the right side and produced pain down the back of the thigh and outer aspect of the calf. There was also tenderness in the region of the lumbosacral junction on this side. The pain down the right leg was aggravated by bending the lumbar spine to the right and by extension.

In making a lumbar puncture the needle was inserted between the fourth and fifth lumbar spinous processes, but no fluid was obtained. The patient experienced severe pain down the right leg when the needle was inserted. It was then inserted at the next higher interspace, and fluid was obtained, which was clear and colorless. The pressure was 180 mm. of water, and the Queckenstedt sign was negative. Four cc. of lipiodol was injected. Examination of the spinal fluid revealed a cell count of 3 and a protein content of 27.1-2 mg. per 100 cc. Fluoroscopic examination of the lumbar spine, made by Dr. J. A. Beals, demonstrated a partial obstruction as from a protruding mass in the spinal canal on the right side between the fourth and fifth lumbar vertebrae (fig. 5).



Fig. 5. Case 5, showing filling defect opposite the right fourth lumbar interspace after lipiodol injection.

A diagnosis of herniated intervertebral disk at the fourth lumbar interspace on the right side was made. At operation on February 3, the right lamina of the fifth and the lower half of the fourth lumbar vertebrae were removed. There was hypertrophy of the ligamentum flavum between the fourth and fifth lumbar vertebrae. A large herniated disk was observed protruding between these vertebrae on the right side. A swollen fourth lumbar root was stretching over the herniated disk. After the capsule of the disk had been split, the herniated portion of the disk protruded and was removed completely in two pieces. The dura was then opened and the lipiodol allowed to drain out. (fig. 6).

Following the operation the patient complained of dull pain in the lower back and some pain in the right leg. He also complained of numbness in this leg, but no anesthesia could be demonstrated, nor motor weakness. A slight infection in the superficial layers of the wound required drainage for a few days. He was discharged from the hospital on the twenty-first postoperative day, at which time he was walking about the hospital with the wound healed. He has since remained under my observation. While relieved of the sciatic pain, he continues to complain of a dull pain in the lower back. He has been advised to return to light work, but for various reasons work has not been obtained, and he stays on compensation.

Case 6.—Miss E. O., a white woman aged 45, complained chiefly of sciatic pain in the left leg. She had had pain in this leg off and on for a year, but it had disappeared for a while after an operation in July 1939 for a large femoral hernia on the left side. In January 1940 the pain had recurred in the back of the thigh, in the knee and on the outer side of the left leg and ankle. The pain was aggravated by coughing and sneezing.

On examination, the left leg was flexed at the hip and knee. Lasègue's sign was positive on the left side, and there was tenderness over the sciatic nerve. When the patient stood up, a pronounced lateral curvature of the spine to the right was observed. The lumbar spine was rigid, and the normal lordosis was obliterated. There





*Fig. 6. Postoperative roentgenogram in Case 5, to show small amount of bone removed and the larger quantity of the lipiodol removed at operation.*

was tenderness to the left of the fourth and fifth spinous processes; pressure at this point caused pain down the left leg. The reflexes were normal except that the achilles tendon reflex was diminished and less active on the left side than on the right.

Roentgen examination of the lumbar spine revealed a narrowing of the intervertebral space between the fourth and fifth lumbar vertebrae with tilting of the spine to the right. Studies of the spinal fluid showed that the Queckenstedt test gave normal results; the pressure was 110 mm. of water, the cell count 1, and the total protein content 50 mg. per 100 cc. The fluid was replaced by oxygen. A spinogram, made by Dr. W. M. Shaw, demonstrated a filling defect of the spinal canal on the left side opposite the fifth lumbar interspace (*fig. 7*).

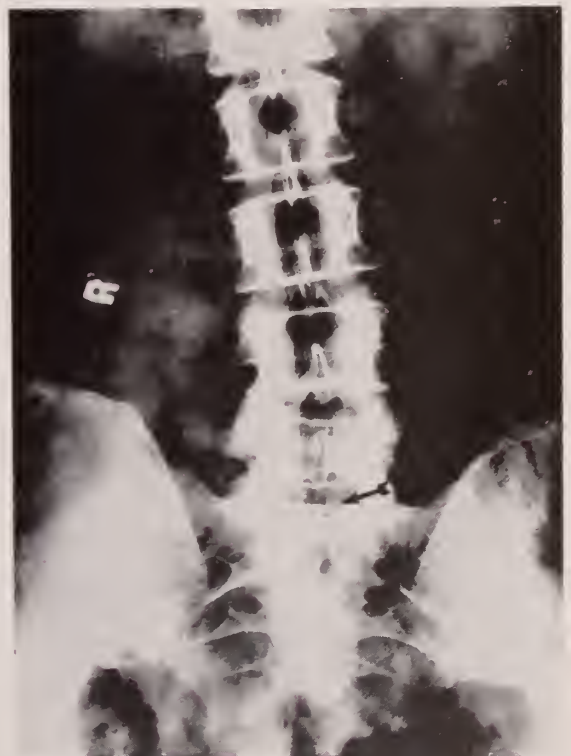
A diagnosis of herniation of the intervertebral disk at the fifth lumbar interspace on the left side was made. When the patient was operated on the fifth lumbar interspace on the left side was exposed by removal of the lower half of the fifth lamina on this side. A swollen fifth lumbar root was overriding the herniated disk. A rupture was observed in the ligamentous structure, and the soft gelatinous cartilage was protruding through it. The latter was removed, and the pressure was relieved.

The patient was sitting up ten days after the operation. When discharged from the hospital fifteen days postoperatively, she was walking with complete relief of the sciatic pain. Although previously unable for some time to stand and walk erectly, she was now able to do so.

Case 6 is one of several cases of recent date in which the condition was diagnosed and the patient operated on from the neurologic findings with confirmation by means of oxygen spinograms. By careful roentgenologic technic a satisfactory and diagnostic outline of the dural sac can be obtained in the lumbar region by replacement of the spinal fluid with oxygen, making it unnecessary to inject lipiodol in the majority of cases. Should the diagnosis not be confirmed by the oxygen spinogram, the gas is readily absorbed, and the patient may be discharged after a rest in bed of two or three days.

#### CONCLUSIONS

1. Sciatica is frequently caused by a herniation of the intervertebral disk making pressure on the nerve roots opposite the disks of the lower lumbar interspaces.
2. The condition can be diagnosed from the clinical history of previous strain or trauma in most cases followed by the typical train of symptoms and neurologic findings as described in the text.



*Fig. 7. Oxygen spinogram in Case 6, showing filling defect opposite the left fifth lumbar interspace.*



3. Confirmation of the diagnosis may be made, if there is any doubt, by the use of a suitable contrast medium in the spinal canal on roentgen examination. Oxygen or air can be used satisfactorily for this examination, and this method is to be preferred since the medium is readily absorbed. The injection of lipiodol has the advantage of giving the greatest contrast and thereby disclosing an obstructive lesion in a higher percentage of cases than other methods, but careful interpretation is necessary, and the picture should be correlated with the neurologic findings.
4. The operative procedure for removal of the disk carries very little risk, and the removal of half a lamina on one side is usually sufficient to remove the herniated disk. The period of hospitalization is short, and the operation offers a means of quickly terminating a disabling condition that may otherwise be prolonged indefinitely.

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514 Greenleaf Bldg.

## DISCUSSION

*Dr. J. A. Beals, Jacksonville:*

The condition which Dr. Lyerly has brought to your attention and so ably illustrated by case reports is one of a few specific, demonstrable causes of a very common complaint, low back pain with sciatic radiation. However, it is far from being the most common cause for it is the etiologic factor in about 2 per cent of such cases at the Mayo Clinic, according to Love.

Knowledge of the herniated nucleus pulposus or protruded disk as a cause of symptoms, which was a new conception for most of us at the time of Mixter's paper in 1934, originated from a roentgenologic method and the excellent work of Hampton of Boston, Camp of the Mayo Clinic and others, in collaboration with their neurosurgical associates. The roentgen method, known as contrast myelography, was not new, for it had been used for years, chiefly to demonstrate the level of spinal fluid blockage as by a tumor.

Lipiodol has been the substance generally employed. Four or 5 cc. is introduced into the spinal canal, usually by lumbar puncture. The lipiodol must be fresh and pale yellow, or it will cause a severe reaction. The patient is brought to the x-ray department, immediately or at any later time, and placed face down upon the fluoroscopic table. It is almost essential to have a table that can be tilted at will. The patient is placed nearly erect for a few minutes as this position causes the lipiodol to accumulate in the sacral end of the dural sac. He is then tilted to the horizontal or slightly head-down position, while the lipiodol is observed with the fluoroscope as it flows over the lumbar intervertebral spaces. The tilting is reversed and repeated as often as desired, usually after rolling the patient 20 degrees or so first to one side and then the other. When an abnormal or suspicious appearance is encountered, a roentgenogram is made as quickly as possible, usually by projection from the x-ray tube beneath the table.

The one finding without which a diagnosis by roentgen examination can hardly be made positively, is a persistent defect in the contour of the shadow cast by the pool of lipiodol. The defect is caused by intrusion of the lump of misplaced cartilage into the lumen of the dural sac and appears almost invariably opposite an intervertebral space. It is generally on one side, the side on which the patient's symptoms occur, although defects and symptoms independently may be bilateral. If a defect occurs at a level above or below that where root symptoms, in the given case, could originate, the finding is disregarded except as a possible source of future trouble. The size of the defect is only roughly proportional to the severity of symptoms. Occasionally the protrusion may completely block the flow of lipiodol in the canal. The size and form of the defect are often modified by a hypertrophic ligamentum flavum. The thickened, edematous nerve root can be seen in some cases as it lies within the lipiodol or as it emerges from the dural sac.

The findings are constant. In lieu of experience with a large number of these examinations, I have insisted upon confirming the defect at a second examination a day or more after the first. The method is said to have an accuracy of about 90 per cent. Errors are due to misinterpretation of other intraspinal lesions which cause similar defects, and to the fact that in a few instances at the lumbosacral level a protruded disk may pinch the first sacral root extradurally without deforming the dural sac.

The lipiodol is usually removed at operation, but a few droplets remain. Numerous cases do not come to operation. The lipiodol remains indefinitely, an unwanted, even though inert, foreign substance that is in contact with

the cord and meninges. No good evidence has been found by those who have sought for it, to support the natural apprehension that it may harm these vital structures. One objection at present, which will decrease with familiarity, is that a roentgenogram showing retained lipiodol is overly impressive to the neurotic patient, to the malingerer seeking compensation and to a jury of nonmedical persons. These considerations have led some to prefer air or oxygen as a contrast medium for myelography. There seems to be no doubt that these gases are inferior to lipiodol in point of diagnostic accuracy, being about one tenth as accurate, according to Garland of San Francisco.

Dr. Lyerly and others have proposed that lipiodol be reserved for a second examination when the gas has given doubtful results, or results at variance with clinical evidence. I question this attitude, for this procedure will often double the inconvenience for patient and physician, probably with the result that too often the second examination with lipiodol will be neglected. I agree that it may be preferable for the surgeon to proceed with exploratory laminectomy. With experience the neurologists are acquiring confidence in their ability to diagnose and localize these lesions, as demonstrated in Dr. Lyerly's first two cases, independently of myelography. Besides, 96 per cent of the protruded disks in the lumbar region occur at the fourth or fifth cartilage, which is a limited region to explore on the basis of good clinical evidence.

*Dr. Prescott LeBreton, St. Petersburg:*

I want to congratulate Dr. Lyerly on his excellent paper and his fine results.

Frequently we see something in the literature which I think is illuminating. In December 1939 the Mayo Clinic bulletin described the interesting case of a young man about 35 years of age who came to the orthopedist for the spinal condition of spondylolisthesis. The orthopedist also detected signs of protrusion of a disk, and this condition was confirmed by roentgen examination. The neurosurgeon performed a hemilaminectomy on this patient, and then the orthopedist did a bone graft from the second lumbar vertebra down to the sacrum.

I bring this case up because I believe personally, as an orthopedist, that the roentgenologist, the neurosurgeon and the orthopedic surgeon need to cooperate and correlate their services when occasion arises. The solution to this man's problem demonstrates the careful cooperation existing between the neurosurgeon and the orthopedist. The orthopedist rarely undertakes to do a laminectomy for a protruding disk whereas a neurosurgeon handles only his particular field. However, these cases come before the orthopedist first and have to be recognized by him.

In an article I read last night the authors listed a series of cases of this type and stated that some surgeon had operated on these patients without preliminary roentgen studies, depending entirely upon clinical findings for location of the protruding disk.

I should like to ask Dr. Lyerly if he feels that he is going to reach such a stage that he will be able to detect these protrusions without the use of oxygen, air or lipiodol.

*Dr. Lyerly (concluding):*

I wish to thank Dr. Beals and Dr. LeBreton for their discussions.

In regard to frequency, I realize that these herniated disks do not occur in all cases of sciatica. The Mayo Clinic, which has one of the largest series of any clinic, states that about 2 per cent of all cases of lower back pain turn out to be surgical cases for these intervertebral disks.

I know that roentgenologists prefer lipiodol because of the higher contrast as shown by it. The surgeon who handles the patient afterward always worries about the presence of a foreign substance in the patient's spinal canal. In some cases it has been found in the cranial cavity. When we use oxygen or air, we know that it will be absorbed, leaving nothing to worry about.



I think this type of case presents a problem, as Dr. LeBreton has said, for a number of consultants. The roentgenologists help, the orthopedists help, and frequently the internists help. One has to look for every possible cause. The patient must be studied for everything else that might be the cause of this condition. Of course, if he has a typical history and the findings are confirmatory, I think we can be almost certain that the patient has a herniated disk.

Although I have operated on cases from clinical findings alone, without using roentgen studies and contrast media, I believe it is best, as I see it now, to use air or oxygen when the spinal puncture is done preceding the roentgen examination. I do not mean to say we are not going to use lipiodol, but I expect to use clinical findings first, then studies of the spinal fluid with injection of oxygen for spinograms, and lastly injections of lipiodol in a few doubtful cases.

## REPORT OF TWO CASES OF BRANCHIAL CLEFT FISTULAS

Fred H. Bowen, M. D.

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Many cases of fistulas of the branchial cleft have been reported. The two to be considered here are, however, unusual in that the first of them went unrecognized for a period of fifteen years, and in the second case, in which the condition occurred bilaterally, the history suggested that one fistula had healed gradually without operation.

### REPORT OF CASES

**Case 1**—An 18 year old girl, who complained of a swelling of fifteen years' duration in the lower left part of the neck was admitted to the hospital on Jan. 3, 1940. When she was three years old, a cervical swelling had developed which was incised and drained, a procedure that had been repeated eight or ten times in the subsequent fifteen years. The patient usually felt a stiffness in her neck about four hours before each swelling occurred, and while the swelling was present, she experienced moderate pain upon turning her head, but had no difficulty in swallowing or breathing. After the tumefaction developed, it occupied a place just above the medial portion of the clavicle on the left side. When the swelling was incised, a thick, whitish liquid drained out, the drainage usually continuing for about two or three weeks. After the drainage ceased, a crust formed over the opening; and after the crust came off, the opening was marked by a scar, until the next swelling occurred. About ten days before admission, the last swelling had occurred and was incised by the family physician. The patient complained of nervousness and poor appetite. There was no family history of tuberculosis and no history of loss of weight.

Physical examination revealed a well developed and well nourished girl in a state of nervous apprehension, but suffering no pain. She was physically active and toyed with the bed clothes. There was a coarse tremor of the hands and tongue. Tonsillar fragments were bilaterally present, but no opening in the pharynx was detected. The thyroid gland was diffusely enlarged. About 1 inch above the medial border of the clavicle on the left side, along the border of the sternomastoid muscle, there was a depressed opening covered by a crust, which, when removed, left an opening of about 2 millimeters. Roentgenograms of the neck, after the injection of lipiodol, showed a fistulous tract which coursed upward from the external opening into the pharynx (*figs. 1 and 2*).

From the Surgical Service of Dr. N. Clyde Marvel, West Baltimore General Hospital.



*Fig. 1, Case 1*

Seven days after the patient was admitted, the fistula was removed, under secenal-gas-ether anesthesia. The external opening was injected with methylene blue, and a probe was passed into it. The internal opening was below and behind the posterior faucial pillar. The external opening was surrounded by an elliptic incision, which was carried upward toward the angle of the mandible. The fistulous tract was followed up to the wall of the pharynx, where it was torn across. The subcutaneous tissue was closed with catgut and the skin with horsehair; two Penrose drains were inserted. The patient made an uneventful recovery and was discharged from the hospital five days after the operation. Healing progressed rapidly, and massage was begun twelve days after dismissal. Six months after the operation, the patient had a hyperplastic reddish scar, and occasionally experienced some limitation of motion when she turned her head.

**Case 2**—A man aged 31 was admitted to the hospital on Jan. 22, 1940, complaining of abdominal pain of one week's duration. He had an opening in the lower third of the right side of his neck, from which had come an intermittent discharge since birth. This discharge, whitish and milky in character, was more profuse during the summer months. When he awakened in the morning, the discharge had usually dried around the opening. He said that the opening occasionally became as "sore as a boil." He had been told by his mother that an opening on the left side of the neck had closed during his childhood.

On physical examination, the temperature, pulse rate and respiratory rate were normal. The patient, a well developed and well nourished man, lay restlessly in bed in no apparent pain. He perspired profusely. An opening of about 1 millimeter in width was noted in the lower third of the neck along the border of the right sternomastoid muscle. This aperture was not pigmented, and no fluid could be expressed. A depressed scar was noted in a corresponding position on the opposite side of the neck. Examination of the urine and blood gave normal results. Reaction to the Eagle test for syphilis was negative. Four days after the patient was admitted, the tract was injected with lipiodol, and a roentgenogram showed the fistula to extend upward into the pharynx.

Seven days after admission, the patient was anesthetized with gas-ether, and the fistula was injected with methylene blue. A probe was passed into the external opening and upward through the fistulous tract into the pharynx. The internal opening was posteroinferior to the posterior pillar. The external opening was excised, together with a portion of the skin, and the fistulous tract was freed from the surrounding tissues by blunt and sharp dissection up to





*Fig. 2, Case 1*

a point about 2 centimeters from the pharynx. At that point, the fistulous tract was tied securely to the probe, drawn into the pharynx and sutured to the anterior pillar. A soft rubber drain was placed down to the pharyngeal wall, and the wound was closed with catgut. On the second postoperative day the drain was removed. Three days later, the skin sutures were removed, and a teaspoonful of pus was evacuated from the site of the drain. The patient was discharged from the hospital on the seventh postoperative day. An acute tonsillitis developed soon after he left the hospital, but this infection responded favorably to routine treatment. The wound was completely healed within three weeks after discharge.

#### HISTORY

Cervical fistulas were first reported by Huncyowski in 1789, and congenital cervical fistulas were reported by Dzondi in 1829. Rathke described branchial clefts in mammalian embryos in 1835. Rosen in 1859 placed lateral cervical cysts and fistulas on an embryonic basis. In 1912 Wenglowski attributed these fistulas and cysts to a thymic origin.

#### EMBRYOLOGY

During the fourth week of embryonic life five branchial arches are formed in the embryonic neck, thus producing five ridges separated by four grooves. From these arches develop many of the various structures of the larynx, pharynx and neck. During the fifth week, there develop four internal pouches, which lie opposite the external branchial grooves. The first two arches grow larger than the other three, eventually overlapping and obscuring them; the second arch attaches itself to

the embryonic thoracic wall. A sinus is thus produced, the epithelial lining of which is usually absorbed. Occasionally this lining persists, and the cervical sinus of the embryo forms the cervical cyst of the adult. Similarly, a pinching off and failure of absorption of the entodermal lining of the pharyngeal pouches may produce an internal cyst. Furthermore, if the thin wall between the external embryonic groove and the internal pouch breaks through, a branchial fistula may result, which extends from the pharynx to the outside.

There are six theories concerning the origin of branchial fistulas and cysts: (1) rupture of the embryonic membrane separating an external branchial groove from an internal branchial pouch; (2) failure of proper cleft union or fusion; (3) incomplete retrogression of the branchial apparatus; (4) anomalous development of the vestigial remnants of a branchial cleft; (5) persistence of the cervical sinus; and (6) remnants of the thymic duct.

#### PATHIOLOGY

The fistulous tract usually extends from an opening along the anterior border of the lower third of the sternomastoid muscle upward and obliquely into the pharynx, and the pharyngeal process is the usual site of the internal opening.

The inner part of the tract is lined with columnar and the outer with stratified squamous epithelium. When the fistula is infected, there is much leukocytic invasion of the wall. The external opening of the fistulous tract is often pigmented and may present a small tab of skin, which sometimes contains cartilage. The fistulous opening is usually about 1 1-2 inches from the median line of the neck.

#### DIAGNOSIS

Diagnosis is suggested by the history and by the presence of an indented, pigmented opening in the lower third of the neck. A tab of skin may be near the external opening. Pain and tenderness are rare and are usually due to infection. Probing of the external opening demonstrates that the fistulous tract passes upward toward the pharynx, and occasionally it is possible to pass a probe into the pharynx, as in case 2. Probing of the tract sometimes causes the patient to cough, and at times an intermittent pulse or slowing of the pulse is observed. These arrhythmias are probably vagal effects. Occasionally, fluid may be expressed from the ex-

ternal opening by milking downward along the anterior border of the sternomastoid muscle.

Methylene blue may be injected into the external opening, and careful observation shows it escapes from the internal opening into the pharynx. The injection of radiopaque solutions offers an admirable means of visualizing the extent, size and course of the fistulas. Various solutions may be used, but lipiodol has yielded the best results in our hands and is used by most of the writers on this subject. An irregular extravasation along the lower part of the tract indicates cavitation from secondary infection and suppuration.

#### TREATMENT

Treatment consists of surgical removal of the fistulous tract. Many surgeons have taxed their ingenuity in devising ways and means to extirpate these fistulas. Love advocated closing the external fistulous opening with a purse string. This procedure is followed by accumulation of secretion in the fistulous tract, which he reported facilitates its removal. Christopher<sup>1</sup> favored injecting the tract with melted paraffin to facilitate its surgical removal. Ladd and Gross<sup>2</sup> and Bailey<sup>3</sup> recommended two transverse incisions, the lower one surrounding the external opening of the fistula by an elliptic incision. The fistulous tract is dissected upward to a point near the angle of the mandible, where another transverse incision is made, parallel to the primary incision, and the dissection is carried to the pharyngeal wall, as previously described. These authors rightly claimed that the transverse incisions produce less noticeable scars than the longitudinal ones. Ladd and Gross<sup>2</sup> believed that the spinal accessory nerve should be identified in removing the fistula.

Attempts have been made to eradicate fistulas of the branchial cleft by the injection of sclerosing solutions. Carnoy's solution is the liquid most recently used. No controlled series of cases has been presented to show the advantage of sclerosing solution over surgical excision. Ladd and Gross<sup>2</sup> brought out the fact that the tract is hard to fill with lipiodol and hence would be hard to fill with a sclerosing solution. They further affirmed that a solution strong enough to destroy the thickest portion of the wall would penetrate the wall in its thinner portions and injure the perifistular tissue. Injection of sclerosing solution causes scar tis-

sue and renders subsequent surgical treatment more difficult.

It has been our practice to place the Davis tonsillectomy mouth gag in the patients' mouth as soon as he has been anesthetized. The external opening is injected with methylene blue. An assistant, who is stationed near the patient's head, notes the site where the methylene blue enters the pharynx and removes it by suction. The excess methylene blue is washed from the fistula with normal salt solution. A probe is passed from the external opening upward toward the pharynx, and, if possible, into the pharynx, where it is securely clamped. In many cases it may not be possible to pass a probe throughout the fistulous tract, but the probe should be passed as close to the pharyngeal wall as possible.

Caution should be used not to produce a false opening. The external opening should be surrounded by an elliptic incision, and the tract should be excised, the probe being used in the fistula as a tractor and guide. The skin of the neck is incised longitudinally, and the fistula is dissected upward as near the pharynx as possible. Here, one of two procedures may be followed: the fistula may be ligated as close to the pharyngeal wall as possible, or the tract may be securely tied to a probe, invaginated into the pharynx and ligated from within. The second method is preferable when it is technically possible. The first will, however, yield good results if the dissection is carried close to the pharyngeal wall, and it will probably be used in the majority of cases.

#### SUMMARY

Two cases of fistula of the branchial cleft are presented. The history, embryology, pathology and diagnosis of this condition are outlined, and a method of treatment is described.

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613 Greenleaf Bldg.

# PEPTIC ULCERS ASSOCIATED WITH PITUITARY TUMORS

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and

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That gastrointestinal ulceration may be secondary to or associated with intracranial disorders has been known for years. According to Cushing,<sup>1</sup> Rokitsansky<sup>27</sup> was probably the first to suggest this relationship. In 1842 he described acute perforating ulcers, hemorrhagic erosions and chronic intestinal ulcers, which he thought might be of neurogenic origin.

Three years later, Schiff<sup>28</sup> reported experiments which seemed to lend support to Rokitsansky's theory. Working with dogs and rabbits, he observed that gastrointestinal ulcerations and perforations occurred frequently following damage to the optic thalamus and adjacent cerebral peduncle. These experiments were repeated and essentially confirmed by Ebstein<sup>29</sup> in 1874 and Brown-Sequard<sup>3</sup> in 1876. The former by injecting chronic acid into the region of the anterior corpora quadrigemina, produced gastrointestinal lesions without damaging the peduncles; the latter reported a chronic perforative gastric ulcer in an animal following the cauterization of the cerebral cortex.

In 1874 Arndt<sup>1</sup> published in detail the clinical record and postmortem findings of a patient with a tumor in the base of the brain who had had gastrointestinal symptoms during life. He reported that the intracranial tumor was an angiosarcoma or endothelioma of the meninges and that numerous hemorrhagic areas were observed in the stomach at autopsy. Aware of the importance of these findings, Arndt<sup>2</sup> in 1888 reported a second case of intracranial tumor associated with gastrointestinal changes.

Interest in the neurogenic theory of ulcer pathogenesis then seemed to wane. In 1926 Burdenko and Mogilniisky<sup>5</sup> produced hemorrhagic erosions of the gastrointestinal tract by damaging the hypothalamus. Korst<sup>23</sup> in 1928, reported a series of cases in which intracranial lesions were associated with hemorrhagic erosions of the gastric mucous membrane. It was not until 1932, however, when Cushing<sup>8</sup>

delivered his Balfour lecture on peptic ulcers and the interbrain, that interest in the subject was reawakened.

Cushing's interest in the problem was stimulated by the experience of having 3 patients with cerebellar tumor die of gastrointestinal perforations following successful intracranial operation. A review of all of his records revealed 8 additional patients with diencephalic lesions and peptic ulcer. This association suggested to Cushing<sup>9</sup> that there might exist a relationship between the interbrain and gastrointestinal ulceration. While he did not claim that nervous disturbances constituted the only factor in the development of peptic ulcers, his Balfour lecture is replete with experimental and clinical data in favor of its importance. More recent communications from Masten and Bunts<sup>34</sup> and Grant,<sup>34</sup> who reported cases of intracranial lesion associated with gastrointestinal ulcer, seem to strengthen Cushing's concept.

Our interest in the gastrointestinal manifestations of intracranial disease is limited to the presence of peptic ulcers in patients with hypophysial tumors. This association was previously reported by Comroe,<sup>7</sup> Swan and Stephenson,<sup>29</sup> Vonderahe,<sup>30</sup> Gauss,<sup>33</sup> and Foley, Snell and Craig.<sup>31</sup> Their cases and ours are tabulated in table 1. Our experience leads us to believe that many other cases have been observed, but not recorded. Of the 6 cases presented, 2 were previously reported by Comroe.<sup>7</sup>

TABLE 1.—HYPOPHYSIAL TUMORS  
ASSOCIATED WITH PEPTIC ULCER

TABULATION OF CASES REPORTED		No. of cases
1933	Comroe <sup>(7)</sup>	2
1935	Swan, Stephenson <sup>(29)</sup>	1
1939	Gauss <sup>(33)</sup>	1
1939	Vonderahe <sup>(30)</sup>	3
1939	Foley, Snell, Craig <sup>(31)</sup>	1
1940	Graves, Hodes	6*

\* Includes the patients reported by Comroe.

## REPORT OF CASES

Case 1.—A. R., a white woman aged 36, was admitted to the hospital in September 1930 complaining of epigastric distress and bloody stools of three months' duration. An artificial menopause had been induced in 1915, and since that time she had gained 100 pounds. Her weight on admission was 249 pounds, and the blood pressure was 135 systolic and 90 diastolic. The presence of obesity and hirsutism suggested polyglandular disease. A roentgenogram of the head showed enlargement of the hypophysial fossa, the distortion simulating that of hypophysial tumor.

Case 2.—A. K., a white woman aged 42, was admitted in November 1931 complaining of headache and spots before her eyes of ten years' duration. On physical

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Fig. 1. (A) Portion of lateral film of head revealing an enlarged hypophysial fossa. (B) Compression film of the region of the gastroenterostomy stoma revealing a marginal ulcer indicated by the arrow.

examination her blood pressure was 200 systolic and 120 diastolic, and edema of the ankles was present. A refractive error of the eyes was corrected, and thereafter the patient improved.

In November 1936 the headache and blurred vision recurred. Studies of the visual fields revealed an early bitemporal hemianopsia. Roentgenograms of the head demonstrated an enlarged hypophysial fossa suggestive of hypophysial tumor (fig. 1). The region of the pituitary was irradiated through two temporal fields, each of which received 2000 r, measured in air. The headache disappeared, the fields became normal, and the blood pressure dropped to 160 systolic and 90 diastolic.

In May 1937 the patient noticed that her menstrual periods had become irregular. At about the same time, epigastric pain, relieved by food, became manifest. A gastrointestinal survey revealed a duodenal ulcer. The patient was treated medically and improved. In June 1938 the ulcer pain recurred and tarry stools were noticed. The ulcer was again demonstrated roentgenographically.

Case 3.—W. S., a white man aged 57, was admitted in September 1932 complaining of brittle nails, loss of hair, malaise and generalized pain in the muscles. The symptoms were all of about one year in duration. A roentgenogram of the head showed an enlarged hypophysial fossa and suprasellar calcification suggesting tumor of the hypophysial stalk.

One month later, the patient began to complain of epigastric distress. A gastrointestinal study revealed a large ulcer on the lesser curvature of the stomach, which was considered benign. The patient's blood pressure was 90 systolic and 60 diastolic. Death occurred several weeks later; the cause was not established.

Case 4.—H. P., a white woman aged 19, was admitted complaining of pain in the upper part of the abdomen of four months' duration. Coincident with the epigastric distress the patient noticed tarry stools, vomiting, and constipation. She had lost 41 pounds during the eight months prior to admission. Also she had suffered from amenorrhea. Physical examination revealed a nodular enlargement of the thyroid and an infantile uterus. Roentgen examination of the gastrointestinal tract demonstrated a penetrating duodenal ulcer. A roentgenogram of the skull revealed an enlarged hypophysial fossa suggesting an intrasellar tumor (fig. 2).

Gastroenterostomy was performed. Soon thereafter, the hypophysial tumor was irradiated, 1800 r being delivered to each of two temporal fields. In April 1938 the patient suffered a severe gastrointestinal hemorrhage. A marginal ulcer was found roentgenographically and confirmed at operation. The patient died after the operation.

Case 5.—S. S., a white woman aged 26, was admitted in May 1935 because of epigastric pain of two years' duration. Physical examination revealed hirsutism and masculine features. A gastrointestinal survey demonstrated an ulcer in the duodenum. A roentgenogram of the head revealed an enlarged hypophysial fossa suggesting a pituitary tumor. Definite bitemporal defects of the visual fields were also present.

The duodenal ulcer was healed medically, and the hypophysial tumor was irradiated at the same time, each of two temporal portals receiving 1800 r. The patient improved rapidly. In July 1938 the gastrointestinal symptoms recurred, but there were no symptoms referable to the hypophysis. The duodenal ulcer was resected.

Case 6.—M. E., a white woman aged 41, was admitted in December 1939 because of blurred vision first noticed in May 1939. The past history was typical of peptic ulcer with gastrointestinal hemorrhages of three and one-half years' duration. Physical examination revealed a patient with definite acromegalic features. Bitemporal constrict-

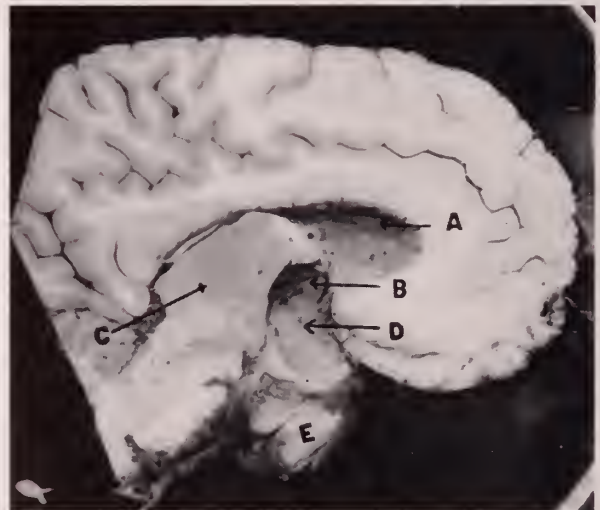


Fig. 2. Sagittal section of the brain of a patient with a hypophysial stalk tumor. (A) lateral ventricle, (B) third ventricle, (C) midbrain, (D) suprasellar extension of the hypophysial tumor, (E) intrasellar portion of the hypophysis.

Note the marked encroachment of the suprasellar extension of the hypophysial tumor (D) upon the third ventricle (B) and midbrain (C).

tion of the visual fields and roentgen evidence of an enlarged hypophyseal fossa seemed to complete the picture of an hypophyseal tumor. Roentgen examination of the gastrointestinal tract failed to reveal a definite ulcer crater, but the duodenal cap was irritable.

#### REVIEW OF CASES

We reviewed the records of 147 patients with pituitary tumor. Six had peptic ulcer, an incidence of 4 per cent. This is of interest as the frequency of ulcer in random groups varies from 1 to 2 per cent.<sup>17, 26</sup> Of added significance is the fact that there were five times more women than men with peptic ulcer in the group having hypophyseal tumor whereas, usually, peptic ulcer occurs from two to five times more frequently in men than in women. It is also noteworthy that only 60 per cent of the entire group of 147 patients with pituitary tumor were women.

There seemed to be no relationship between the character of the pituitary tumor and the development of peptic ulcer (*table 2*). Almost every patient presented clinical evidence of polyglandular disease. Amenorrhea, hypertension, obesity and hirsutism occurred characteristically. The gastrointestinal symptoms included epigastric pain, vomiting and the signs of hemorrhage. In 5 patients the roentgenogram of the skull revealed a considerable degree of enlargement of the hypophyseal fossa. In one instance the fossa was barely within the maximum limit of normal in size.

#### DISCUSSION

Why patients with pituitary tumor may be more susceptible to peptic ulcer than normal persons is unknown. Various hypotheses present themselves. McLaughlin<sup>25</sup> demonstrated that suprarenal injury frequently produces intestinal ulceration in animals. Since pituitary lesions are sometimes associated with adrenal

cortical lesions, one wonders whether a pituitary-adrenal mechanism might account for the peptic ulcers seen in our patients. Of equal significance are the observations of Vonderahe<sup>20</sup> who, upon examining the brains of patients dying with peptic ulcer, found evidence of intracranial disease in about 20 per cent of the cases. In his series there were 3 patients with hypophyseal tumor.

Since Cushing's stimulating lecture on "Peptic Ulcers and the Interbrain" numerous investigations have been undertaken to explain the relationship between the diencephalon and the gastrointestinal tract. Beattie and Sheehan<sup>7</sup> studied the effects of hypothalamic stimulation on gastric motility and secretion. Their experiments showed that gastric tone, motility and secretion were increased when the tuber region was stimulated electrically. These effects were not obtained following bilateral vagal section. Heslop,<sup>15</sup> confirming their work, concluded that anterior hypothalamic stimulation produces increased tone and secretion whereas stimulation of the posterior hypothalamus has a much less noticeable and possibly a converse effect.

These observations are of interest because Hoff and Sheehan,<sup>10</sup> following the work of Watts and Fulton<sup>22</sup> concerning the effect of hypothalamic lesions upon the digestive tract and heart in monkeys, observed gastrointestinal lesions only when the anterior hypothalamus (tuber cinereum) was damaged. Similar intestinal ulcers were not noted when the posterior hypothalamus alone was injured. Kabat and his associates,<sup>18</sup> however, could demonstrate no increase in gastrointestinal tone or motility by electrical stimulation of the lateral hypothalamic area in unanesthetized cats.

TABLE 2.—SUMMARY OF CASES REPORTED

	CHARACTER OF TUMOR	SIZE OF HYPOPHYSIS	GASTROINTESTINAL SYMPTOMS
Case 1	?	A. P. 16 mm., depth 17 mm.	Epigastric Pain Tarry Stools
Case 2	?	A. P. 14 mm., depth 12 mm.	Epigastric Pain Hematemesis Tarry Stools
Case 3	Hypophyseal stalk tumor	A. P. 15 mm., depth 15 mm.	Epigastric Distress
Case 4	Chromophobe Adenoma	A. P. 15½ mm., depth 17 mm.	Abdominal Pain Tarry Stools Vomiting
Case 5	?	A. P. 14 mm., depth 14 mm.	Epigastric Pain
Case 6	Eosinophilic Adenoma	A. P. 18 mm., depth 15 mm.	Epigastric Pain Hemorrhage

Keller and his coworkers<sup>19, 20, 21, 22</sup> also contributed much information to this problem. Instead of stimulating the hypothalamus they produced destructive lesions in the same region. Ulcerations in the digestive tract were observed following the production of midbrain lesions which were accompanied by hemorrhage into the ventricles. Transverse lesions at the level of the chiasm unassociated with intraventricular hemorrhage produced similar gastrointestinal ulcerations. It is noteworthy that these investigators reproduced their experimental results even after they had separated the hypophysis from the hypothalamus by cutting the stalk.

These experiments strongly suggest that there exists in the diencephalon a center influencing the gastrointestinal tract, which apparently lies within the hypothalamus.<sup>6, 8</sup> The hypothalamus, according to Fulton,<sup>12</sup> is a portion of the diencephalon in which the highly organized vegetative functions of the body are integrated. It maintains body temperature by coordinating the individual mechanisms of sweating, vasoconstriction and vasodilatation. It determines blood pressure and the metabolism of fats and carbohydrates. Water balance and the control of sexual reflexes are under its influence. In addition, the experimental observations reviewed seem to indicate that the gastrointestinal tract is also under hypothalamic control. Its influence upon the digestive tract is probably partial however, as Watts and Fulton<sup>31</sup> clearly demonstrated that the higher brain centers (cerebrum) also affect it.

An extensive study of the neurogenic aspects of ulcer pathogenesis suggested to Cushing<sup>9</sup> that there exists in the diencephalon a parasympathetic center. From this center, apparently situated in the tuber cinereum, fiber tracts pass backward to the cranial autonomic stations of the midbrain and medulla. Of these, the vagal nucleus is the most important because of its relationship to the heart, lungs and abdominal viscera.<sup>8</sup> Cushing believed that the gastrointestinal lesions produced experimentally by hypothalamic injury were probably the result of interference with the parasympathetic fiber tracts in their course from the anterior hypothalamus to the vagal center.

Normally there exists a delicate balance between the parasympathetic and sympathetic

nervous systems. So far as the stomach is concerned, it is known that parasympathetic stimulation (vagal) leads to hypersecretion, hyperchlorhydria, hypermotility and hypertonicity, all factors predisposing to ulcer formation.<sup>8</sup> Sympathetic stimulation, however, produces reverse effects. Hoff and Sheehan<sup>16</sup> postulated that the experimental gastrointestinal lesions observed following trauma to the region of the nucleus tuberalis may be the result either of direct destruction of sympathetic centers in the hypothalamus, thus releasing the vagus, or of irritation of the parasympathetic pathways in the base of the brain.

Peptic ulcers have been variously considered as of bacterial, traumatic, vascular, chemical and neurogenic origin. Which of these mechanisms is responsible for the apparent increased susceptibility of patients with pituitary tumor to peptic ulcer remains an uncertainty. The evidence presented by Cushing<sup>8, 9</sup> and others suggests that the neurogenic mechanisms may be important in some instances because it is well known that the interbrain may often be damaged by suprasellar hypophysial extensions. This does not mean, however, that all such peptic ulcers are of neurogenic origin. If they were, one should expect a much higher incidence of gastrointestinal lesions in patients with hypophysial tumor as suprasellar extensions of such a growth are not uncommon. That patients with hypophysial tumor may develop peptic ulcer more frequently than random groups of persons is of interest as the observation seems to strengthen the neurogenic theory of ulcer pathogenesis.

#### SUMMARY

1. A review of the records of 147 patients with hypophysial tumor revealed 6 patients with associated peptic ulcer.
2. The incidence of peptic ulcer in our patients with pituitary tumor was higher than in random groups.
3. Peptic ulcer occurred more frequently in women with pituitary tumor than in men with a similar growth.
4. The apparent susceptibility of patients with pituitary tumor to peptic ulcer may be due to interference with the normal course of vagal innervation from the midbrain to the gastrointestinal tract.



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Plan to Attend

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SIXTY-EIGHTH ANNUAL MEETING

*of the*

FLORIDA MEDICAL ASSOCIATION

Jacksonville, April 28, 29, 30

## Jacksonville—The Convention City



*Hemming Park, in the Heart of Jacksonville*

Gay, cosmopolitan Jacksonville, with a fascinating history that reaches back to earliest colonial times, a solid foundation of steadily growing commerce and industry, and a new place in the sun as a center for national defense activities, is a delightful vacationland offering the visitor an infinite variety of active pleasures and sightseeing thrills.

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Camp Blanding nearby lend military color and excitement to all phases of life.

Jacksonville's silvery-white beach that once knew the stern tread of Spanish men-at-arms would be a strange sight indeed for the amazed eyes of those knights of Spain's golden age if they could return today.

More than 600 feet wide at low tide, extending in a great shining crescent some 30 miles southward from the mouth of the St. Johns River, this world-famous beach is dotted today with the automobiles of carefree vacationists enjoying the novel thrills of surfside motoring on the smooth, hard-packed sand. Many others, of course, in gaily colored beach costumes, are surf-bathing, picnicking, playing games or just reveling in complete relaxation on the gleaming white sand. And overhead, a friendly sun beams on this happy picture.

But a nameless thrill comes to these sun-worshippers when they realize that the massive





*Convention Headquarters*

sand dunes towering to landward once echoed to the clank of Spanish armor as Menendez and his band of soldiers marched to destroy Fort Caroline.

It was on May 1, 1562, more than half a century before the Pilgrims sighted Plymouth, that Jean Ribault and his daring band of French Huguenots sailed into the mouth of the mighty St. Johns near Jacksonville and knelt on the river bank to offer up the first Protestant prayer ever uttered in North America. They had succeeded in reaching the New World in their flight from persecution in Europe.

Later, in 1564, more Huguenots under Laudonniere sailed farther up the river to St. Johns Bluff and established Fort Caroline, first settlement in North America intended as a permanent colony.

The following year the all-conquering Spanish, determined to wipe out this threat to their domination of the New World, established a camp at St. Augustine and marched up the broad, easy boulevard of this matchless beach toward Fort Caroline.

And in the cold, gray light of dawn, when most of the French soldiers were sailing down the coast to attack St. Augustine, the Spanish

rose up out of the surrounding forest and massacred the few defenders. This was the first battle between European nations in the New World.

Jacksonville and its scenic countryside offer an amazing variety of beauty spots and points of historic interest, and sightseeing trips are always popular with visitors. Fort George Island, a fascinating spot near the mouth of the St. Johns, has many relics of one of the earliest colonial plantations, once a slave-trading center and later the headquarters for the ill-fated Patriots' Rebellion that nearly wrested control of Florida from the Spanish overlords.

Stowe Lodge at nearby Mandarin is the former home of Harriet Beecher Stowe, author of "Uncle Tom's Cabin"; Oriental Gardens, a beautiful riverfront estate, has become one of the South's outstanding showplaces; Dickson's Ante-Bellum Mansion is a treasurehouse of interesting antiques where one of the finest collections in America may be seen; and quaint little Fernandina, a notorious pirates' haven in colonial days, delights visitors with its picturesque charm and delicious shrimp and oyster dinners. Fascinating old Fort Clinch is also located at Fernandina.

Florida's greatest golfing thrills are offered by several sporty courses at Jacksonville, including the famed Ponte Vedra links, ranked as one of America's six finest. Salt-water fishing from piers, boats and the beach itself, and fresh-water fishing in countless lakes and streams in this area, provide anglers with a matchless variety of their favorite sport.

Tennis on excellent public and private courts, archery, horseback riding, park sports and brilliant after-dark entertainment are a few of the many other diversions popular with visitors in Jacksonville.





# PROGRAM

*of the*

## SIXTY-EIGHTH ANNUAL MEETING

*of the*

### FLORIDA MEDICAL ASSOCIATION, Inc.

### TO BE HELD AT JACKSONVILLE, FLORIDA

### APRIL 28, 29, and 30, 1941

#### REGISTRATION

The registration desk will be located on the mezzanine of the Roosevelt Hotel with continuous service throughout the meeting. All members will be required to register and secure identification badges before attending any of the sessions. Guests and ladies are required to register. Tickets for the dinner, Tuesday evening, April 29, may be obtained at the registration desk.

#### HOTELS

ROOSEVELT—*Convention Headquarters*  
(European Plan)

	Single - \$3.00	Double - \$5.00
	Single	Double
George Washington . . . . .	\$3.00*	\$5.00*
Burbridge . . . . .	2.50	4.00
Mayflower . . . . .	2.50*	4.00*
Seminole . . . . .	2.50*	4.00*
Windsor . . . . .	2.50	4.00*
Aragon . . . . .	2.00	3.50
Andrew Jackson . . . . .	2.50	3.00
Windle . . . . .	2.00*	3.00*

\*And up.

#### TECHNICAL EXHIBITS

Technical exhibits will be located on the mezzanine of the Roosevelt Hotel. The technical exhibits have a real scientific value and physicians who wish to keep abreast of the times and know the latest in drugs and medical appliances should spend some time with these exhibits. A surprising amount of useful information can be procured at these exhibits. Many have nothing for sale, the representatives of the firms being there to give the latest information regarding their products. Those who have items for sale will gladly give information whether there is a purchase or not. Be sure to register your name with the various representatives who are exhibiting.

The following firms have arranged for exhibits at the Jacksonville meeting:

A. S. Aloe Company  
American Hospital Supply Corporation  
American Optical Company  
Bard-Parker Company, Inc.  
Cameron Surgical Specialty Company  
Ciba Pharmaceutical Products, Inc.  
The Coca-Cola Company  
H. G. Fischer & Company  
C. B. Fleet Company  
General Electric X-Ray Corporation  
Harold Surgical Corporation  
Holland-Rantos Company, Inc.  
Keleket X-Ray Company of Florida  
Lederle Laboratories, Inc.  
J. B. Lippincott Company

M & R Dietetic Laboratories, Inc.  
Mead Johnson & Company  
The Mennen Company  
The William S. Merrell Company  
The C. V. Mosby Company  
Parke, Davis & Company  
Petrolagar Laboratories, Inc.  
Philip Morris & Company, Ltd., Inc.  
Schering Corporation  
Sharp & Dohme  
Smith, Kline & French Laboratories  
Southeastern Optical Company, Inc.  
E. R. Squibb & Sons  
Standard X-Ray Sales Company  
Surgical Supply Company  
Table Rock Laboratories  
Westinghouse X-Ray Division  
John Wyeth & Brother

#### SCIENTIFIC EXHIBITS

The scientific exhibits will be located in Parlor C of the Roosevelt Hotel. We consider ourselves fortunate to be able to present for your approval the following exhibits:

1. Bureau of Professional Relations, School of Pharmacy, University of Florida, Gainesville.
2. Contact Lenses. Shaler Richardson, M. D. and Charles W. Boyd, M. D., Jacksonville.
3. Florida Tuberculosis Sanatorium. R. D. Thompson, M. D., Superintendent and Medical Director, Orlando.

#### FISHING TRIPS

Parties will be taken to McKenna's Camp on the Bay-shore Road where they will be outfitted with tackle, bait and boats. Speckled trout, drum and bass are plentiful in these waters. Applications may be made in advance by those interested in this sport; or they may register at the information desk at the Roosevelt Hotel upon arrival in Jacksonville. Applicants will be given their choice of mornings or afternoons on these trips, Monday, Tuesday or Wednesday. Address all communications to Dr. Banks H. Goodale, chairman of the Anglers' Committee, St. James Building, Jacksonville.

#### GOLF

The annual handicap golf tournament for members of the Florida Medical Association will be played at the Hyde Park Country Club. The tournament will be held Monday and Tuesday, April 28 and 29. The club will be available to members of the Association for practice rounds on Saturday, April 26. Those wishing to participate must be registered and show F. M. A. badges. No greens fees will be charged members wearing badges.

Rules: U. S. Golf Association. See card for local rules.

Handicaps: Three-fourths official handicap with a maximum of 27 strokes. The entrant must register with the starter and give his handicap before beginning his tournament round.

Score card must be dated, signed, attested and turned in to the starter at the end of the round.

First prize: Orlando Cup (low net score). Many other prizes will be awarded.

For additional information, communicate with Dr. W. E. Ross, Chairman, Golf Committee, 201 St. James Building, Jacksonville.

### SKET AND TRAPSHOOTING

Skeet and trapshooting events will take place Tuesday afternoon at 4 p. m. and will be held at the Jacksonville Gun Club, located on the Jacksonville Airport grounds. Three skeet fields and three fields for trapshooting will be available. Guns will be furnished. Ammunition and targets may be secured at regular prices. It is desired to have a fifty-bird program in each event, which will be shot on a handicap basis. Qualifications or handicaps should be submitted from your local club secretary. All applications to participate in this sport should be made to Dr. J. W. Hayes, Chairman of the Trapshooters' Committee, 209 Professional Building, Jacksonville.

### STAG SMOKER

Monday, 9:00 p. m.

GEORGE WASHINGTON HOTEL

Admission by F. M. A. Badge Only

### ASSOCIATION DINNER

Tuesday, 7:30 p. m.

BALLROOM

Dinner tickets (\$2.00) may be obtained at the registration desk.

### AWARDING OF PRIZES

Tuesday, 9:30 p. m.

Golf, Fishing, Skeet and Trapshooting

### DANCE

Tuesday, 10:00 p. m.

BALLROOM

### ALUMNI AND FRATERNITY LUNCHEONS

The committee in charge of alumni and fraternity luncheons has made arrangements with the Roosevelt Hotel to provide rooms for any groups of doctors who desire to have lunch together. All doctors who plan to attend an alumni or fraternity luncheon should communicate at once with Dr. E. C. Swift, 614 Greenleaf Building, Jacksonville.

Doctors interested in having a group luncheon for the Phi Chi alumni are requested to communicate with Dr. Gordon H. Ira, 451 St. James Building, Jacksonville, who was appointed last year to make the necessary arrangements for such a luncheon in Jacksonville this year.

### OFFICERS OF DUVAL COUNTY MEDICAL SOCIETY

S. R. NORRIS, *President*

ERNEST B. MILAM, *President-elect*

JAMES M. BRYANT, *Vice President*

F. GORION KING, *Secretary*

ALAN BROWN, *Treasurer*

### LOCAL COMMITTEES

#### Cabinet

Luther W. Holloway, <i>Chairman</i>	Banks H. Goodale
S. R. Norris	John W. Hayes
Kenneth Morris	Alan Brown
Edward Jelks	Frederick J. Waas
W. McL. Shaw	Edwin C. Swift
Turner Z. Cason	H. D. Van Schaick
Robert B. McIver	Gordon H. Ira
William E. Ross	

#### Registration

Kenneth Morris, <i>Chairman</i>	Charles B. Mabry
George W. Croft	J. K. Norwood
L. Y. Dyrenforth	John C. O'Dell, Jr.
John M. Gorman	Ferdinand Richards
O. E. Harrell	Raymond Sanderson
Louie Limbaugh	

#### Hotels

Edward Jelks, <i>Chairman</i>	Horace R. Drew
J. B. Black	Karl B. Hanson
Charles W. Boyd	James H. Hartman
S. E. Driskell	S. A. Morris

#### Lantern-Amplifier

W. McL. Shaw, <i>Chairman</i>	H. Bernard McEuen
John A. Beals	Carl C. Mendoza
A. Judson Graves	Aaron Z. Oberdorfer
W. Tracy Haverfield	Frank G. Slaughter

#### Association Dinner

Turner Z. Cason, <i>Chairman</i>	F. Gordon King
Sullivan G. Bedell	John F. Lovejoy
Russell Dean	Paul H. Martin
John D. Ferrara	Ernest B. Milam
Leo C. Gonzalez	Thomas M. Palmer
Victor A. Hughes	E. T. Sellers

#### Smoker

Robert B. McIver, <i>Chairman</i>	Ben Manhoff
James L. Borland	Robert D. May
James M. Bryant	J. Webster Merritt
Thomas E. Buckman	J. D. Pasco
Edward Canipelli	Leo B. Provinsky
Thomas S. Field	George W. Richardson
Julian E. Gammon	Shaler Richardson
Simon I. Kemp	Lauren M. Sompayrac
W. Jerome Knauer	R. Y. H. Thomas
L. Sydnor Laffitte	Leo M. Wachtel

#### Golf

William E. Ross, <i>Chairman</i>	J. H. Owens
H. L. Brillhart	Harry A. Peyton
Graham E. Henson	W. W. Rogers
J. G. Lyerly	Clayton D. Washburn
W. H. McCullagh	C. R. Wilcox
William S. Manning	Robert S. Wynn
George M. Mitchell	

#### Anglers'

Banks H. Goodale, <i>Chairman</i>	Thomas H. Lipscomb
Ray W. Blackmar	Jacob V. Saier
C. C. Collins	A. D. Stollenwerck
H. W. Counts	Albert H. Wilkinson
F. B. Enneis	B. F. Woolsey

#### Trapshooters'

John W. Hayes, <i>Chairman</i>	Charles F. Henley
W. C. Bayless	R. L. McDaniel
Theodore G. Croft	Earl Roberts
W. G. Harris	Eugene D. Simmons

*Finance*Alan Brown, *Chairman*

Neil Alford	Crowell W. Johnston
W. D. Brinson	Robert H. McGinnis
Edwin H. Brown	Lillian E. C. Mark
B. A. Chapman	Harper L. Proctor
Adolph Cone	Raymond B. Ramage
F. A. Copp	Clayton E. Royce
D. F. Harwell	C. M. Sandusky
David G. Humphreys	J. Frank Wilson

*Greeters'*Frederick J. Waas, *Chairman*

Thomas S. Adams	James H. Randolph
Archie J. Baker	William R. Schnauss
William H. Ball	William M. Stinson
George E. Beckman	Edmund H. Teeter
J. Lunsford Boone	L. V. Tyler
P. A. Brinson	N. A. Upchurch
Gerry R. Holden	F. Merrill Wattles
Frederick W. Krueger	Joseph Weinreb

*Alumni and Fraternity Luncheons*Edwin C. Swift, *Chairman*

Henry Bacon	William W. Kirk
Robert M. Baker	Arthur J. Logie
R. R. Killinger	James N. Patterson
H. Marshall Taylor	

*Transportation*H. D. Van Schaick, *Chairman*

Matthew Arnow	Stanley Erwin
Donald M. Baldwin	Dan H. Funkenstein
Frederick H. Bowen	Jack Galin
W. H. Brooks	Albert C. McKenzie
Silas M. Copeland	Leonard N. Moe
Irving J. Strumpf	

*Ladies' Advisory*Gordon H. Ira, *Chairman*

Oliver P. Broadbent	Raymond H. King
A. F. Caraway, Jr.	John H. Mitchell
Frank L. Fort	G. F. Oetjen
D. E. Harrell	Ernest W. Veal
H. Foxworth Horne	A. K. Wilson

**MONDAY****FIRST MEETING OF HOUSE OF DELEGATES***Monday, 1:30 p. m.*

GEORGE WASHINGTON HOTEL, BANQUET HALL

President Turberville in the Chair.

Roll Call and seating of delegates.

Adoption of minutes as published in June, 1940 Journal.

Recognition of delegates to A. M. A.: Meredith Mallory and Edward Jelks (*Official report read at meeting of Executive Committee.*)

Election of one delegate and one alternate to A. M. A. meeting for two-year terms.

(A. M. A. By-Laws, Chapter 1, Sec. 1: "A member of the House of Delegates must have been a member of the American Medical Association and a Fellow of the Scientific Assembly for at least two years next preceding the session of the House of Delegates at which he is to serve.")

Reading of resolutions.

## Reports of Committees:

(Two copies of each report to be laid on speaker's table immediately after reading.)

Executive, Gilbert S. Osincup  
 Scientific Work, Herbert E. White  
 Publication, George D. Lilly  
 Legislation and Public Policy, H. D. Van Schaick  
 Medical Education and Hospitals, Robert D. Ferguson  
 Public Relations, J. Ralston Wells  
 Necrology, Hubert A. Barge  
 Medical Postgraduate Course, T. Z. Cason  
 Cancer Control, James M. Hoffman  
 Medical Economics, Harrison A. Walker  
 Venereal Disease Control, E. T. Sellers  
 Inter-Relationship, Edwin C. Swift  
 Tuberculosis and Public Health, M. Jay Flipse  
 State Controlled Medical Institutions, D. A. McKinnon.  
 Maternal Welfare, Ferdinand Richards  
 Child Health, Warren W. Quillian  
 Advisory to Woman's Auxiliary, Gordon H. Ira  
 Council, Robert B. McIver  
 Representatives to Industrial Council, J. C. Davis  
 Board of Past Presidents, Ralph N. Greene  
 Medical Preparedness, Edward Jelks

New Business.

Announcements.

Adjournment.

**FIRST GENERAL SESSION***Monday, 4:30 p. m.*

BALLROOM

Call to Order, President J. Sam Turberville.

Invocation, Right Reverend D. A. Lyons.

Address of Welcome, S. R. Norris, President, Duval County Medical Society.

President's Address, J. Sam Turberville, Century.

Report of Secretary-Treasurer-Editor, Shaler Richardson, and Managing Director, Stewart Thompson.

Introduction, Delegates from other state societies:

William W. Anderson, Atlanta, Ga.  
 William S. Goldsmith, Daytona Beach  
 Charles R. Andrews, Jr., Canton, Ga.

Recognition, Representatives of Allied Associations.

New Business.

Announcements.

**SCIENTIFIC ASSEMBLIES**

Committee on Scientific Work: Herbert E. White, Chairman, St. Augustine; Leland F. Carlton, Tampa; Charles J. Collins, Orlando; Robert B. Harkness, Lake City; Homer L. Pearson, Miami; James H. Pound, Tallahassee.

Attention is called to the following By-Laws:

"All papers read before the Association shall be its property. Every paper shall be deposited with the Secretary when read."

"No address or paper before the Association, except those of the President and Orator, shall occupy more than fifteen minutes in its delivery, and no member shall speak longer than five minutes or more than once on any one subject."

**PROJECTORS**

The Committee on Projecting Lantern, of which Dr. W. McL. Shaw is chairman, has arranged for a projecting lantern and daylight screen for use during the convention. An operator will be available at all times.



FIRST SCIENTIFIC ASSEMBLY

Monday, 7:00 to 8:30 p. m.

BALLROOM

1. "Sporotrichosis" (Lantern slides), Elmo D. French, Miami.

Sporotrichosis is a fungus infection due to one of several species of the genus *sporotrichum*. Administration of iodides usually cures the disease within a few weeks. Lack of recognition of the disease usually leads to extensive mutilation and invalidism. The historic and epidemiologic aspects of the disease are discussed, followed by the report of a case including the clinical and histopathologic findings, the cultural characteristics and microscopic appearance of the causative organism with illustrations.

Discussion: Lauren M. Soupayrac, Jacksonville;

A. B. Litterer, Miami.

2. "The Care of the Premature Infant" (Lantern slides), N. O. Pearce, Miami Beach.

This paper will attempt to cover briefly the important new developments in the routine procedures for the care of the premature infant.

Discussion: J. R. Boulware, Lakeland;

Ludo von Meysenbug, Daytona Beach.

3. "Congenital Cystic Lung Disease in Infancy: Report of a Case" (Lantern slides), Hillard W. Wilks, Coral Gables.

A review of literature, discussion of etiology and pathogenesis, and indicated treatment in congenital cystic lung disease as seen in infancy. Presentation of a case observed in early infancy, with lantern slides showing progress of the disease.

Discussion: Robert Blessing, Ft. Lauderdale;

Thomas M. Palmer, Jacksonville.

STAG SMOKER

Monday, 9:00 p. m.

GEORGE WASHINGTON HOTEL

Admission by F. M. A. Badge Only

TUESDAY

PAST PRESIDENTS' BREAKFAST

Tuesday, 8:00 a. m.

PARLOR A, ROOSEVELT HOTEL

SECOND SCIENTIFIC ASSEMBLY

Tuesday, 9:00 to 11:30 a. m.

BALLROOM

4. "Medicine and the Florida Criminal Law," Frederick H. Dieterich, Miami.

A presentation of the inadequacy of coroners' procedures in determining cause of death. The coroner system is contrasted to other systems, including that of medical examiner. The latter method is stressed and its relationship to fields other than purely criminologic are discussed.

Discussion: Clayton E. Royce, Jacksonville;

L. Y. Dyrenforth, Jacksonville.

5. "Application of the Synthetic Sex Hormones, Male and Female, in Their Newer Forms" (Lantern slides size 2" x 2"), Carlos P. Lamar, Miami.

A preliminary report on the work being done in the Department of Endocrinology and Nutrition of the Jackson Memorial Hospital with the synthetic estrogens (Stibestrol) and the synthetic androgens (Testosterone, subcutaneous implantation pellets; and Methyl-testosterone for oral administration).

Discussion: George A. Mitchell, Miami;

James J. Nugent, Miami.

6. "Obstetrics" (Symposium)

a. "Management of Labor in Abnormal Presentations," Robert G. Nelson, Tampa.

b. "The Role of the Delivery Home in Treating the Low Income Group," James M. Hoffman, Pensacola.

The need of a properly supervised institution to care for the indigent and low income group, which would aid in reducing maternal mortality. Opportunity for providing better obstetrics for this group. The details of management, medical and nursing staffs, and financing are dis-

c. "Toxemias of Pregnancy" (Lantern slides), Samuel R. Norris, Jacksonville.

Case of fulminating toxemia of pregnancy. One convulsion. Slow labor, twenty-four hours. Podalic version and extraction. Hysterectomy for noncontracting uterus. Five transfusions and recovery. Pathologic report of uterus. General discussion of toxemias.

Discussion: M. C. Wilson, Miami;

Charles J. Collins, Orlando;

Harold G. Nix, Tampa;

Donald M. Baldwin, Jacksonville.

SECOND GENERAL SESSION

Tuesday, 11:30 a. m.

BALLROOM

Call to Order, J. Sam Turberville, President

Address (By invitation) "Hyperinsulinism: Induced and Spontaneous Hypoglycemia" (Lantern slides), Seale Harris, Professor Emeritus of Medicine, University of Alabama, Birmingham, Ala.

THIRD SCIENTIFIC ASSEMBLY

Tuesday, 1:45 to 4:15 p. m.

BALLROOM

7. "Preventriculosis" (Lantern slides), Charles J. Henberg, Pensacola.

This paper states that cardiospasm is a misnomer and asks that preventriculosis, meaning "disease ahead of the stomach," be adopted as the term best suited for this pathologic condition. The author discusses the etiology and offers one new idea as to causal pathology. Symptoms of the disease are discussed and differential diagnosis mentioned. Treatment with dilatation and the various means of its accomplishment are followed in a complete case report and lantern slides visualizing the pathology.

Discussion: James L. Borland, Jacksonville;

Harrison A. Walker, Miami Beach.

8. "The Use of Vitamins in Surgery," J. Rocher Chappell, Orlando.

The subject of vitamins in surgery will be a general review of the literature on this subject with a discussion of the deficiencies in bodily requirements and the frequency in which those deficiencies are encountered in general surgical practice. Also a discussion of the results obtained by the administration of vitamins preoperatively and postoperatively. Vitamins A, B, C, D, and K are the ones that will be taken up.

Discussion: John S. Hehns, Tampa;

Walter C. Jones, Miami.

9. "Conditions Simulating Appendicitis," Frank G. Slaughter, Jacksonville.

1. Regional ileitis. Three cases are presented in which the symptoms suggest appendiceal abscess. A brief discussion of the disease, its historical aspects and specific points in diagnosis and treatment. 2. Acute mesenteric lymph adenitis. Several cases of acute enlargement of the mesenteric lymph nodes in children are presented, showing its close resemblance to acute appendicitis. Discussion of etiologic importance of undemonstrable low-grade infections in this condition. 3. Rupture of Graafian follicle cysts with hemorrhage into the peritoneum; symptoms of abdominal pain associated with midmenstrual rupture of the ovarian follicle itself, commonly called "mittelschmerz." 4. Parasitic diseases, particularly hookworm and amebas.

Discussion: I. M. Hay, Melbourne;

Edward Jelks, Jacksonville.

10. "Surgical Treatment of Extensive or Advanced Cancers of the Skin" (Lantern slides), Richard M. Fleming, Miami.

Most skin cancers, especially those originating in scars, are amenable to treatment, even though quite extensive. Many are denied surgery because of apparent inoperability but closer consideration of the surgical possibilities will salvage some of these. Cases illustrating this point are presented.

Discussion: George D. Lilly, Miami;

James M. Hoffman, Pensacola.

## SECOND MEETING OF HOUSE OF DELEGATES

Tuesday, 4:30 p. m.

GEORGE WASHINGTON HOTEL, BANQUET HALL

Roll Call (*No alternates are to be seated for delegates attending yesterday's meeting*).

Recommendations of reference committees:

No. 1, Health and Education

No. 2, Public Policy

No. 3, Finance and Administration

Other unfinished business.

Announcements.

Adjournment.

## ASSOCIATION DINNER

Tuesday, 7:30 p. m.

BALLROOM

*Dinner Tickets (\$3.00) may be obtained at the registration desk*

## DANCE

Tuesday, 10:00 p. m.

BALLROOM

## WEDNESDAY

## FOURTH SCIENTIFIC ASSEMBLY

Wednesday, 9:00 to 12:00 a. m.

BALLROOM

11. "Fallacious Views Concerning Rhinologic Surgery and Factors Influencing More Successful Results," A. R. Hollender, Miami Beach.

The general opinion of the laity and of some general practitioners that intranasal surgery is never successful requires correction. Some patients urgently require nasal or sinal operation for maintenance of health. Anatomic and physiologic references are made because they have a direct bearing on the problem. The symptomatic and therapeutic aspects of nasal and sinal disease are reviewed with the aim of pointing out why a negative attitude toward rhinologic surgery has been adopted. Classic indications for surgical correction are given as well as factors conducive to more successful results.

Discussion: M. A. Lischkoff, Pensacola;  
Gail E. Chandler, Miami.

12. "The Simplicity of Diagnosing Typical Coronary Thrombosis" (Lantern slides), Gordon H. Ira, Jacksonville.

1. The advisability of making available an electrocardiographic examination to every patient with a suspicious coronary attack. 2. Its necessity in diagnosis in all questionable cases. 3. The danger to life in mistaken diagnosis. 4. A demonstration of the simplicity in interpreting an electrocardiogram of typical coronary occlusion.

Discussion: Stanley Erwin, Jacksonville;  
Franz Stewart, Miami.

13. "The Use of Quinidine Sulfate in the Treatment of Auricular Fibrillation" (Lantern slides), Louie Limbaugh, Jacksonville.

The use of quinidine in the treatment of chronic auricular fibrillations has been considered a somewhat hazardous procedure. A review of the recent literature refutes this belief and reveals that considerable benefit can be derived from its proper use. Case reports of six patients with chronic auricular fibrillation treated with quinidine are presented.

Discussion: Webster Merritt, Jacksonville;  
E. Sterling Nichol, Miami.

14. "The Public Health Laboratory and the Private Practitioner," James N. Patterson, Jacksonville.

Improvements in laboratories of State Board of Health during the past two years. Importance of properly taking, preparing and shipping specimens to the laboratory. Discussion of the more important routine tests regularly performed in the laboratories of the State Board of Health. Comments on changes made or to be made in certain procedures.

Discussion: T. Z. Cason, Jacksonville;  
Herbert L. Bryans, Pensacola.

15. Clinicopathologic Conference, Franz Stewart, Director, Miami; L. Y. Dyrenforth, Pathologist, Jacksonville.

## THIRD GENERAL SESSION

Wednesday, 12:05 p. m.

BALLROOM

President Turberville in the Chair.

Unfinished business.

New business.

Election of President-elect.

Election of First Vice President.

Election of Second Vice President.

Election of Third Vice President.

Election of Secretary-Treasurer and Editor of the Journal.

Dr. Walter C. Jones escorted to the Chair as new president.

Presentation of Past President's Button to Dr. J. Sam Turberville, by Dr. Ralph N. Greene.

Adjournment.

## SPECIALTY GROUP MEETINGS

TWENTY-SECOND ANNUAL MEETING  
FLORIDA RAILWAY SURGEONS'  
ASSOCIATION

## OFFICERS

Leland F. Carlton, President ..... Tampa  
J. W. Alsobrook, President-Elect ..... Plant City  
Z. Brantley, Vice President ..... Grandin  
W. C. Page, Secretary-Treasurer ..... Cocoa

## COMMITTEES

## Executive

Frank D. Gray, Chairman ..... Orlando  
A. P. Gurganious ..... Palatka  
John R. Boling ..... Tampa

## Scientific

T. M. Rivers, Chairman ..... Kissimmee  
R. B. Harkness ..... Lake City  
A. M. Sample, Jr., ..... Ft. Pierce

## GENERAL SESSION

Monday, April 28

BALLROOM, ROOSEVELT HOTEL

- 9:00 a. m. Call to order, Leland F. Carlton, President.  
Invocation.  
Address of Welcome.  
Response by the President.  
Annual Address of the President.  
Report of Secretary-Treasurer.  
Reports of Standing Committees.

## SCIENTIFIC PROGRAM

- 10:00 a. m. 1. "A brief Resume of the Experience of a Railway Surgeon," Z. Brantley, Grandin.  
2. "Streptococic Infections About the Rectum," Duncan McEwan, Orlando.  
3. "Three Cases of Cancer in Children Under Five Years of Age," Henry E. Palmer, Tallahassee.  
4. "The Local Surgeon's Relation to the Railway Legal Department," Mr. Smith Brittingham, Attorney for S. A. L. Railway.

## BUSINESS MEETING

12:00 noon Election of Officers.

12:30 p. m. Annual Luncheon, Ballroom.

SIXTH ANNUAL MEETING  
FLORIDA PEDIATRIC SOCIETY

OFFICERS

Warren W. Quillian, President	Coral Gables
Ludo von Meysenbug, Vice President	Daytona Beach
George N. Leonard, Secretary	Miami Beach

*Sunday, April 27*

PARLOR B, ROOSEVELT HOTEL

6:00 p. m. Cocktail Hour.

8:00 p. m. Dinner Meeting.

"Use of the Sulfonamide Group of Drugs  
in Treatment of Diarrhea and Dysentery,"  
Samuel F. Ravenel, Greensboro, N. C.,  
Guest Speaker.

*Monday, April 28*

ROOM 328, ROOSEVELT HOTEL

10:00 a. m. Round Table Discussion:

"Diarrhea and Dysentery as Encountered  
in Florida."

TENTH ANNUAL SPRING MEETING  
FLORIDA RADIOLOGICAL SOCIETY

OFFICERS

Joseph H. Lucinian, President	Miami
John N. Moore, Vice President	Ocala
Elliott M. Hendricks, Sec.-Treas.	Ft. Lauderdale

*Sunday, April 27*

PARLOR A, ROOSEVELT HOTEL

2:30 p. m. Round Table Discussion

6:00 p. m. Banquet, Parlor A.

8:30 p. m. Round Table Discussion

*Monday, April 28*

PARLOR A, ROOSEVELT HOTEL

9:00 a. m. Business Meeting and Election of Officers.

THIRD ANNUAL MEETING  
FLORIDA SECTION

AMERICAN COLLEGE OF PHYSICIANS

OFFICERS

Louie Limbaugh, President	Jacksonville
Kenneth Phillips, Secretary	Miami

*Monday, April 28*

PARLOR B, ROOSEVELT HOTEL

10:00 a. m. Scientific Session

1. "Erythrocyte Sedimentation Rate: A Comparative Analysis Based Upon Routine Clinical Data," James L. Borland and L. Y. Dyrenforth, Jacksonville. Discussion
2. "The Use of Cobra Venom and of Oxygen in the Control of Cardiac Pain," Karl Hanson, Jacksonville. Discussion
3. "Electrocardiographic T Wave Changes in Nonorganic Heart Disease," Webster Merritt, Jacksonville. Discussion
4. A paper on Cardiology (By invitation), Carlos F. Cardenas, Havana, Cuba.

Election of Officers

12:00 noon Luncheon (\$1.00) in Parlor B.

REGULAR QUARTERLY MEETING OF THE  
FLORIDA SOCIETY OF DERMATOLOGY  
AND SYPHILOLOGY

OFFICERS

Alan Brown, President	Jacksonville
Lauren M. Sompayrac, Secretary	Jacksonville

*Monday, April 28*

OUT-PATIENT DEPARTMENT, DUVAL COUNTY HOSPITAL

9:00 a. m. Clinical Session

11:00 a. m. Discussion of Cases

*Monday, April 28*

SPANISH RESTAURANT, EAST ADAMS STREET

12:00 noon Luncheon and Business Meeting.

THIRD ANNUAL MEETING  
FLORIDA SOCIETY OF OPHTHALMOLOGY  
AND OTOLARYNGOLOGY

OFFICERS

H. Marshall Taylor, President	Jacksonville
S. B. Forbes, Vice President	Tampa
C. E. Dunaway, Secretary	Miami

*Monday, April 28*

BALL ROOM, GEORGE WASHINGTON HOTEL

10:30 a. m. Scientific Session (*Papers limited to 20 minutes each, no discussion*).

1. "The Management of Primary Glaucoma," H. J. Blackmon, Tampa.
  2. "Compensation and Industrial Ophthalmology," Nelson M. Black, Miami.
  3. President's Address, H. Marshall Taylor, Jacksonville.
  4. "Conservative Treatment of Sinus Disease," James H. Peter Mendel, Miami.
  5. "Problems of Allergy in Practice of Otolaryngology," W. Y. Sayad, West Palm Beach.
- 12:30 p. m. Luncheon and Business Meeting, and Election of Officers. Ball Room, George Washington Hotel.

THIRD ANNUAL MEETING, FLORIDA  
ASSOCIATION OF INDUSTRIAL SURGEONS

OFFICERS

A. M. Bidwell, President	Tampa
G. F. Oetjen, President-elect	Jacksonville
Kenneth A. Morris, Vice President	Jacksonville
T. H. Roberts, Secretary-Treasurer	Lakeland

*Sunday, April 27*

BANQUET HALL, GEORGE WASHINGTON HOTEL

- 5:00 p. m. President's Address,  
A. M. Bidwell, Tampa
- 5:15 p. m. "Industrial Surgery,"  
C. F. Holton, Savannah, Ga.
- 5:30 p. m. "The Organization of State Groups,"  
Mr. A. G. Park, Executive Secretary,  
American Association of Industrial Physi-  
cians and Surgeons, Chicago.
- 5:45 p. m. "Problems of the Florida Industrial Com-  
mission," Mr. James Knott, Local Deputy  
Commissioner, Jacksonville.
- 6:00 p. m. Election of Officers.
- 6:15 p. m. Round Table Discussion
- 7:30 p. m. Smoker (*Members of the Florida Railway  
Surgeons' Association are cordially in-  
vited to attend as our guests.*)



## HEALTH OFFICERS' SECTION OF THE FLORIDA PUBLIC HEALTH ASSOCIATION

### OFFICERS

W. P. Rice, President ..... Orlando  
Frank V. Chappell, Vice President. .... Madison  
L. L. Parks, Secretary ..... Jacksonville

*Monday, April 28*

Room 528, ROOSEVELT HOTEL

9:00 a. m. "Public Health Control of Gonorrhea,"  
L. C. Gonzalez, Jacksonville  
Discussion  
9:50 a. m. "Coordinating the School and Health Program," A. L. Stebbins, Pensacola  
Discussion  
10:30 a. m. "Modern Methods of Immunization,"  
Thomas M. Palmer, Jacksonville  
Discussion  
11:10 a. m. "The Practicing Physician's Place in Public Health," W. H. Pickett, Jacksonville.  
Discussion  
12:00 noon Announcements

## FLORIDA SOCIETY OF OBSTETRICS AND GYNECOLOGY

### TEMPORARY OFFICERS

Homer L. Pearson, President ..... Miami  
E. Bryant Woods, Secretary. .... Tampa

*Monday, April 28*

Room 428, ROOSEVELT HOTEL

10:00 a. m. Business Meeting—Organization, Election of Officers, Adoption of By-Laws.

## FLORIDA SECTION OF THE AMERICAN COLLEGE OF SURGEONS

*Sunday, April 27*

CLUB ROOM, GEORGE WASHINGTON HOTEL

6:30 p. m. Dinner.

## WOMAN'S AUXILIARY FIFTEENTH ANNUAL MEETING

### OFFICERS

Mrs. Gordon H. Ira, President ..... Jacksonville  
Mrs. J. W. McMurray, 1st. Vice President Ft. Lauderdale  
Mrs. F. W. Krueger, 2nd. Vice President Jacksonville  
Mrs. L. H. Oetjen, Recording Secretary ..... Leesburg  
Mrs. Clayton E. Royce, Corresponding Sec'y. Jacksonville  
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Mrs. L. C. Ingram, Parliamentarian ..... Orlando

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Mrs. Frederick J. Waas ..... "

### REGISTRATION

Ladies from out of town are requested to go direct to the registration desk for their official programs and badges. Local ladies are requested to register Sunday afternoon, to make way for the guests who will arrive on Monday.

### PROGRAM

*Monday, April 28*

1:00 p. m. Luncheon for the ladies on the balcony of the Rainbow Room, George Washington Hotel.  
1:00 p. m. Luncheon for State Auxiliary board members at the home of Mrs. Gordon H. Ira, 1334 Challen Avenue.  
8:00 p. m. Cabaret dinner in the Japanese Room of the Windsor Hotel.

*Tuesday, April 29*

9:30 a. m. General Auxiliary Session, Parlor B, Roosevelt Hotel.  
Call to Order, Mrs. Gordon H. Ira, President, Jacksonville.  
Invocation, Reverend D. H. Rutter.  
Address of Welcome, Mrs. Victor Hughes, Jacksonville.  
Response, Mrs. W. J. Barge, Miami.  
Recognition of Past Presidents.  
Recognition of President of the Florida Medical Association, Dr. J. Sam Turberville, Century.  
Recognition of Chairman of Advisory Committee, Dr. Gordon H. Ira, Jacksonville.  
In Memoriam, Mrs. L. C. Ingram, Orlando.  
Reading of Minutes and Treasurer's Report, Mrs. Leroy H. Oetjen, Leesburg.

### Reports:

Credential and Registration Committee, Mrs. Luther W. Holloway, Jacksonville.  
Social, Mrs. S. R. Norris, Jacksonville.  
Officers.  
Standing Committees.  
District Chairmen.  
County Auxiliaries.  
Special Committees.  
Unfinished Business.  
New Business.  
Election of Officers.  
Report of Courtesy Resolution Committee.  
Presentation of Gavel.  
Presentation of President's Pin.  
Reading of Minutes.  
Announcements.  
Adjournment.

1:30 p. m. Luncheon at Florida Yacht Club.  
Postconvention Board Meeting.

7:30 p. m. Association Dinner, Roosevelt Hotel.

*Wednesday, April 30*

10:00 a. m. Tour of Jacksonville gardens.

## Florida Medical Association, Inc. Officers and Committees

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Third—WILLIAM S. NICHOLS, M.D., '41 .....Lake City  
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Sixth—MAXIMILIAN STERN, M.D., '42 .....Daytona Beach  
Seventh—W. C. MCCONNELL, M.D., '41 .....St. Petersburg  
Eighth—HOWARD V. WEEMS, M.D., '42 .....Sebring  
Ninth—J. ROCHER CHAPPELL, M.D., '42 .....Orlando  
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(Terms expire Dec. 31, 1941)

EDWARD JELKS, M.D., Delegate .....Jacksonville  
HERBERT L. BRYANS, M.D., Alternate .....Pensacola  
(Terms expire Dec. 31, 1942)



SEALE HARRIS, M. D., OUR GUEST OF HONOR

Dr. Seale Harris, Sr., of Birmingham, has won international recognition as the discoverer of hyperinsulinism.

Born in 1870 of distinguished parents, he received his academic training at the University of Georgia, leaving there at the end of his junior year in 1892 to take up the study of medicine. He received his Medical Degree from the University of Virginia in 1894. He did postgraduate work at the New York Polyclinic in 1900, at the Postgraduate Medical School of Chicago in 1904, and at Johns Hop'kins in 1906. Later he pursued his studies at the University of Vienna and other European clinics.

Dr. Harris served as Professor of Medicine in the Medical Department of the University of Alabama from 1907 to 1913 and is now Professor Emeritus of Medicine of that institution. He is a member of the American College of Physicians, a past president of the Southern Medical Association and of the Medical Association of Alabama. He has achieved signal success in the field of medical literature. In addition to contributions to leading publications and textbooks, he was owner and editor of the Southern Medical Journal for many years.

A year after the discovery of insulin, before this product was placed on the market, Dr. Harris spent a week in Toronto with Banting, Best, and their associates. There he had the opportunity of studying many cases and of witnessing insulin reactions in varying degrees. He realized that he had observed nondiabetic patients with symptoms similar to those caused by overdoses of insulin. Later research proved this observation to be correct and he was able to describe a new disease entity, hyperinsulinism.

Because of this background, Dr. Harris' address on "Hyperinsulinism: Induced and Spontaneous Hypoglycemias," to be given before our Annual Meeting, takes on added significance.



## Committees Continued

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## The Journal of the Florida Medical Association, Inc.

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## NOTICE TO DELEGATES AND COMMITTEE CHAIRMEN

The first meeting of the House of Delegates will be held on Monday at 1:30 p. m. at the George Washington Hotel. Delegates are requested to register as soon after arrival as possible. The registration desk will be located in the technical exhibit hall at the Roosevelt Hotel. Delegates arriving late may register at 1:00 p. m. at the George Washington.

A special badge button has been prepared for each member who is to be seated in the House of Delegates. To secure a delegate's badge button, official credentials, signed by the secretary of his county medical society, must be pre-

sented by the delegate at the registration desk up to 1:00 p. m., Monday in the Roosevelt Hotel, or after 1:00 p. m. in the George Washington Hotel. Visitors to the House of Delegates are requested to use the section of the room arranged for them, in order that the official delegates may sit together, as provided in the By-Laws.

Chairmen of standing committees are urged to be present on time so their reports may be read as scheduled in the official program. All committee reports, resolutions, etc., are to be prepared in duplicate and both copies laid on the speaker's table immediately after reading.

Delegates and committee chairmen, please note the time, date and place of the first meeting of the House of Delegates—1:30 p. m., Monday, April 28, George Washington Hotel.

## OLD AGE

When is a man old?

Elbert Hubbard once remarked "The good die young—no matter how long they live."

Upon mature consideration we feel that the word, "good," in this aphorism, might be replaced by "active," "progressive," "enthusiastic," or any other word which would indicate that a man is keeping up a vital interest in life, changing as times change and growing all the while.

When should a physician—or any other man—retire?

As soon as he loses interest in and enthusiasm for his work or feels that he knows all there is to know about it.

We all know that the number of years a man has lived is no adequate index of his age. There are some who are antediluvian mummies at thirty, and others who are vital factors in the life of their communities at ninety. So long as a man is doing something worth while and means something to the world, he is young.

If you have lost interest in medical society meetings; if you "cannot find time" to read one or two medical journals (at least); if the last book in your library is ten years old, or the later ones haven't been studied; if "what you learned in medical college is good enough" for you; if "all these new-fangled notions are damned foolishness," you are growing old, as a doctor.

Don't let life bury you until you are dead. Keep living and learning and loving and you will stay young.

## THE TECHNICAL EXHIBIT

The firms listed below will contribute materially to the success of the convention. Make it a point to visit each booth some time during the Annual Meeting.

### A. S. ALOE COMPANY

The A. S. Aloe Company of St. Louis, Missouri, will exhibit, in booth number 9, a complete line of genuine, American-made, Stainless Steel instruments, physicians' equipment, laboratory supplies and electrotherapy apparatus. Many new items of interest to the medical profession will also be on display at our booth. The display will be in charge of our Florida representatives, Messrs. A. A. Vaughan and Dudley Keith.

### BARD-PARKER COMPANY

Bard-Parker will exhibit the following products at Booth No. 31: Rib-Back surgical blades; Renewable Edge scissors; Hematological Case for obtaining blood samples at the bedside; Ortholator for obtaining accurate dental radiographs.

### CAMERON SURGICAL SPECIALTY COMPANY

Visit Booth No. 2 and see the new Cameron-Schindler Flexible Gastroscope, the Color-Flash Clinical Camera, the Projectoray, the Mirrolite, and latest developments in electrically lighted Diagnostic and Operating instruments for all parts of the body. Of special interest will be the new inexpensive office model Radio Knife, Combination Spark Gap & Tube Electro-Surgical Unit, and other Electro-Surgical Units for cutting, coagulating, desiccation, fulguration and ultra-violet therapy in all sizes from the office model to the Hospital unit with an abundance of power for the most radical surgery and transurethral prostatic resections.

### THE COCA-COLA COMPANY

Coca-Cola will be served to those attending the convention, with the compliments of The Coca-Cola Company.

### H. G. FISCHER & CO.

H. G. Fischer & Co. 1941 models of x-ray and short wave apparatus are so distinctive, both in improved performance and in price, that every physician should consider inspection a convention obligation. The complete H. G. Fischer & Co. line includes shockproof x-ray apparatus, short wave units, galvanic and wave generators, ultraviolet and infra-red generators and many other units, accessories and supplies. Physicians attending the convention are invited to ask for demonstration of apparatus in which they are interested and to consult with Fischer representative regarding techniques made available by Fischer apparatus.

### GENERAL ELECTRIC X-RAY CORP.

The General Electric X-ray Corp. will have an interesting exhibit of Equipment and Supplies in spaces 4 and 5 at the Annual Convention. The exhibit will be attended by Mr. Frank Arrington, Jacksonville; Mr. H. E. Horton, Tampa; Mr. Peter Jongedyk, Miami; and Mr. H. Spitz, Atlanta. They will be pleased to discuss these products, and cordially invite all members and guests to visit their exhibit.

### HAROLD SURGICAL CORPORATION

Doctor: At your 68th annual convention, Roosevelt Hotel, Jacksonville, April 28 to 30, don't fail to visit booth number 30, Harold Surgical Corporation of New York, D. L. Miller in charge. A complete line of highly technical and precision-built instruments and equipment. Our prices and terms are right. I am looking forward to seeing you. D. L. Miller, Harold Surgical Corporation.

### HOLLAND-RANTOS COMPANY

Modern contraceptive technic will be graphically illustrated with a motion picture, and all the various contraceptive materials including both the Koromex and Hyva diaphragms, Koromex and H-R Emulsion jelly, together with the most complete line of contraceptive specialties will be demonstrated at the booth of the Holland-Rantos Company.

### KELEKET X-RAY CO. OF FLORIDA

As exclusive representatives for Kelley-Koett X-ray Apparatus, Liebel-Flarsheim Short Wave Equipment, Bovie Electrosurgical Units and Cambridge Hindle Electrocardiographs, typical instruments in these lines will be exhibited. A new Portable X-ray machine of the latest design and embodying many innovations will be shown. For the last ten years it has been a pleasure to see our many friends at this Annual Meeting and again we cordially invite you to say "Hello".

### J. B. LIPPINCOTT COMPANY

Among the interesting Lippincott Publications on display will be Kugelmass': "Newer Nutrition in Pediatric Practice" and Becker and Obermayer's: "Modern Dermatology and Syphilology", as well as "Functional Disorders of the Foot" by Dickson and Diveley which has already gone into a second printing. Leaman's brand new book, "Management of the Cardiac Patient", will also be displayed. Other interesting works include Thorek's: "Modern Surgical Technic", Rigler's: "Outline of Roentgen Diagnosis", Barborka's: "Treatment by Diet" and many others.

### M & R DIETETIC LABORATORIES

M & R Dietetic Laboratories, Inc., Columbus, Ohio, Booth No. 25, will display Similac, a food for infants deprived either partially or entirely of breast milk, and powdered SofKurd milk. Mr. E. E. Rader will be glad to discuss the merit and suggested application of these products.

### MEAD JOHNSON & COMPANY

"Servamus Fidem" means We Are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pabulum, Oleum Percomorphum and other infant diet materials. But not all physicians are aware of the many helpful services this progressive company offers physicians. A visit to Booth No. 8 will be time well spent.

### THE WM. S. MERRELL COMPANY

The Merrell exhibit, Booth No. 22, will feature several new and interesting prescription specialties of outstanding usefulness to the practicing physician, in addition to a wide range of established therapeutic agents.

### C. V. MOSBY COMPANY

Doctors attending the Convention are cordially invited to visit Mosby Booth No. 19 where they may inspect the new publications which will be on display. Outstanding new volumes on surgery, dermatology, ophthalmology, nervous and mental diseases, heart diseases, x-ray, gynecology and obstetrics, and practice of medicine will be shown.

### PARKE, DAVIS & CO.

Featured in the Parke-Davis Exhibit will be the sex hormones, Theelin and Theolol; antisyphilitic agents, such as Mapharsen and Thio-Bismol; posterior lobe preparations, including Pituitrin, Pitocin and Pitressin; and various Adrenalin Chloride Preparations.

### PHILIP MORRIS & CO.

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject, and problems on the physiological effects of smoking.

### SCHERING CORPORATION

The Schering Exhibit actually displays the entire group of highly advanced Schering hormone preparations, (including Oreton-M, the new orally effective tablets for male hormone therapy), distinguished for their potency, absolute purity, and economy in actual practice. Other specialized products of interest include Neo-Iopax, the Council-Accepted urographic medium, and a new preparation Ludozan, the antacid having strikingly valuable physiological properties. Members of the Medical Research Division are present to discuss endocrine or other problems. Booth No. 12.



# How to Use S-M-A Powder

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1 Empty one tightly packed measuring cup of S-M-A powder into bottle.



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tion of milk sugar and potassium chloride; altogether forming an antirachitic food. When diluted according to directions, it is essentially similar to human milk in percentages of protein, fat, carbohydrate and ash, in chemical constants of the fat and physical properties.

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## SHARP &amp; DOHME

Sharp & Dohme will have their new modern display at Booth No. 15 this year, featuring 'Delyval' Sodium, 'Lyovac' Bee Venom Solution, and other 'Lyovac' biologicals. There will also be on display a group of new biological and pharmaceutical specialties prepared by this house, such as 'Propadrine' Hydrochloride products, 'Rabellon,' 'Padrophyl,' 'Riona,' 'Depropanex' and 'Ribothiron.' Capable, well informed representatives will be on hand to welcome all visitors and furnish information on Sharp & Dohme products.

## E. R. SQUIBB &amp; SONS

A number of new and interesting Vitamin, Glandular, Biological and Chemotherapeutic specialties will be featured in the Squibb Exhibit in Booth No. 7.

Well informed Squibb Representatives will be on hand to welcome you and to furnish any information desired on the products displayed.

## STANDARD X-RAY SALES COMPANY

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Gratitude is extended for the fine support and good will through the past year. Only the best products and at the most reasonable prices will ever be offered. The Standard X-Ray Sales Company represents the Standard X-Ray Company, Chicago, Ill., largest exclusive manufacturers of X-Ray apparatus, and "Pioneers of Safety" and the Lee De Forest Laboratories, Los Angeles, Calif., makers of Short Wave, Ultra-Short, Tissue cutting and other such Radio-Electronic devices.

## SURGICAL SUPPLY COMPANY

The Surgical Supply Company, a Florida organization with stores located in Jacksonville, Tampa, Miami, and Orlando, has an organization of forty, including ten traveling representatives. This Company is entering upon their twentieth year. Their line of general surgical laboratory, and hospital supplies and equipment includes many items worthy of special mention. They are distributors of Cutter's Intravenous Solutions; Scanlan Morris pressure sterilizers; Multibeam Operating Lights; Balfour Tables; Burdick and Birtcher Physiotherapy equipment; Beck Lee Hindle Cardiographs; Hamilton professional furniture; genuine Stille Instruments; Lederle Biologicals and Specialties, and many other items. This aggressive organization appreciates the opportunity to serve Florida's medical profession.

## BIRTHS AND DEATHS

## BIRTHS

Dr. and Mrs. W. H. McCullagh of Jacksonville announce the birth of a son, James Michael, on March 6.

Dr. and Mrs. Herbert W. Virgin, Jr., of Pensacola announce the birth of a daughter, Frances, on March 11.

Dr. and Mrs. W. E. Wentzel of Bradenton announce the birth of a son, Willett Elmer, Jr., on March 9.

## DEATHS

Dr. Cullen B. Wilson of Sarasota died on February 24.

Dr. J. A. Strickland of St. Petersburg died on March 14.

## STATE NEWS ITEMS

Members of the Florida Railway Surgeons' Association are invited to attend a smoker at 7:30 p. m., Sunday, April 27 in the Banquet Hall of the George Washington Hotel, as guests of the Florida Association of Industrial Surgeons.

\* \* \*

Dr. Kenneth Phillips of Miami was the guest speaker at the Annual Meeting of the Arkansas State Medical Association, held in Little Rock, April 14 and 15. His subject was "The Clinical Application of Fever Therapy in Syphilis."

\* \* \*

Dr. and Mrs. C. W. Mayo of the Mayo Clinic recently were house guests at the home of Dr. C. Larimore Perry of Miami Beach.

\* \* \*

The Sixth Semiannual Meeting of the Florida Society of Medical Technicians will be held at the Suwanee Hotel, St. Petersburg, Saturday, May 3. Guest speakers already scheduled are Drs. Louis M. Orr and Fred Mathers of Orlando. Anyone desiring to contribute a paper to the scientific program is requested to contact Louis C. Herring, Orlando, Fla.

\* \* \*

Dr. T. M. Palmer of Jacksonville was invited by Dr. E. A. Park, Professor of Pediatrics at Johns Hopkins, to take charge of the Dispensary of Harriet Lane Hospital for Children, for three weeks while the chief is away. Dr. Palmer left on March 13 to avail himself of this privilege. Dr. Palmer was graduated from Johns Hopkins in 1926.

\* \* \*

There will be a luncheon of Phi Beta Pi at the Roosevelt Hotel, Tuesday noon, April 29. This is the fiftieth anniversary of the founding of the fraternity and all Phi Betas are cordially invited to attend. For further information, contact Dr. B. F. Woolsey, 320 St. James Building, Jacksonville, chairman of the local committee.



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1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," *Am. J. Syph. Gon. & Ven. Dis.*, 23, 201 (March) 1939.

\*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and saluble trituration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

## COMPONENT COUNTY SOCIETIES

### BAY

The following officers head the Bay County Medical Society this year: president, J. M. Nixon, Panama City; vice-president, M. F. Parker, Panama City; and secretary-treasurer, W. C. Roberts, Panama City.

\* \* \*

### ESCAMBIA

The regular meeting of the Escambia County Medical Society was held March 11 at the State Board of Health Building, Pensacola. An interesting paper was presented by Dr. Herbert W. Virgin on "Replacement of Long Bone Shafts with Vitalium." This paper dealt with original work done by the author on an experimental animal, in which he used a telescopic tuber of Vitalium to replace a small section of bone removed.

Dr. A. L. Stebbins of Pensacola was elected secretary-treasurer of the Society to fill the unexpired term of Dr. W. E. Tugwell who has been called into service.

The County Society will be represented by the following delegates and alternates at the Association's annual convention: delegates—C. C. Webb and J. N. McLane; alternates—J. M. Hoffman and H. L. Bryans.

\* \* \*

### MONROE

The Monroe County Medical Society has paid 100 per cent of its dues for 1941. Heading this society are the following officers: president, Harry C. Galey; vice-president, Paul D. Holmoway; secretary-treasurer, William R. Warren.

\* \* \*

### PALM BEACH

The president-elect of the American Medical Association, Dr. Frank Lahey, addressed the members of the Palm Beach County Medical Society at a meeting held at the Good Samaritan Hospital on the evening of February 26. Using lantern slides to illustrate his points, Dr. Lahey spoke on "Lesions of the Stomach, Duodenum and Jejunum." A round table discussion followed.

\* \* \*

### PASCO-HERNANDO-CITRUS

Dr. and Mrs. W. Wardlaw Jones entertained the Pasco-Hernando-Citrus County Medical Society at their home in Dade City on Thursday evening, March 13. After a delightful steak

dinner, a business meeting was held. Dr. W. B. Moon was elected delegate to the next State Medical Association meeting and Dr. W. Wardlaw Jones was elected alternate. The agreement with the Farm Security Administration for services to clients has been signed by all the members of the Society interested in this work.

Clinical case reports were given by all the physicians present.

The Pasco-Hernando-Citrus County Medical Society has paid its full assessment of 1941 dues. Congratulations!

\* \* \*

### PINELLAS

At a meeting of the Pinellas County Medical Society held on the evening of March 7, the following program was presented.

"Cosmetic Dermatitis"—W. W. Harden.

"Diabetes Mellitus"—J. A. Bradley.

"Uropathology in Lower Urinary Tract of the Female"—Gideon Timberlake.

A motion picture on "Local Anesthesia" was also presented.

Pinellas County Medical Society is at present the largest society on the honor roll of 100 per cent paid societies.

\* \* \*

### PUTNAM

Dr. Allen P. Gurganious of Palatka has been appointed acting secretary for the Putnam County Medical Society, to serve in place of Dr. J. Worth Brantley of Grandin, who has been called into service.

\* \* \*

### POLK

The monthly meeting of the Polk County Medical Society was held Wednesday evening, February 12 at the County Hospital, with Dr. L. L. Lancaster as host. A barbecued chicken dinner was served in the dining room at the Old Folks' Home.

Dr. B. R. Tinkler of Lake Wales, president, presided at the meeting. Dr. H. Mason Smith of Tampa, guest speaker, gave an informative talk on "Psychiatry." Thirty-one were in attendance.

\* \* \*

### VOLUSIA

Dr. W. C. Pay of DeLand was principal speaker at a meeting of the Volusia County Medical Society held at Hotel College Arms, DeLand, on February 11. His subject was "Malignant Tumors".



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## ADVERTISERS' NOTES

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Diphtheria Toxoid-Tetanus Toxoid Alum Precipitated Combined, a combination product for convenience in producing active immunization against both diphtheria and tetanus, is now available under the label of E. R. Squibb & Sons, New York. Its advantage lies in the fact that children can be given protection against tetanus, without additional injections, while being routinely immunized against diphtheria. Furthermore, for those who have once been immunized with tetanus toxoid in this way, protection against tetanus following a subsequent injury is afforded by a single supplementary injection of tetanus toxoid. This eliminates the need for tetanus antitoxin (horse serum) and thus removes the risk of serum reactions.

Dosage consists of two 1-cc. injections given at an interval of two to three months or more. The product is supplied in packages of two 1-cc. vials, for one immunization treatment, and a 10-cc. vial for five immunization treatments.

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It is a fortunate provision of Nature that at the time the infant is ready to receive the nutritional benefits of cereal, his taste is unspoiled by sweets, pastry, condiments, tobacco, alcohol and other things to which adult palates and constitutions have become conditioned.

Many a parent, with limited knowledge of nutrition, attempts to do the baby's tasting for him. Partial to sweets, the mother sweetens her child's cereal. Disliking cod liver oil, she wrinkles her nose and sighs: "Poor child, to have to take such awful stuff!" The child is quick to learn by example, and soon may become poor indeed—in nutrition, as well as in mental habits and psychological adjustment.

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Mrs. HILLARD WILLIS, Southeast "F" ..... Coral Gables

## ANNUAL CONVENTION PROGRAM

The complete program for the Woman's Auxiliary at the Annual Convention, to be held in Jacksonville, April 28, 29 and 30, appears on page 516 of this Journal.

## NATIONAL CONVENTION

Only a few more weeks and the members of the Woman's Auxiliary to the American Medical Association will be arriving in Cleveland for their Annual Convention, June 2-6. Have you made your reservation? If not, send your request, *at once*, to Dr. Edward F. Kieger, Chairman of Committee on Hotels and Housing, 1604 Terminal Tower Building, Cleveland.

## POLK COUNTY AUXILIARY

Eleven members were present at the February meeting of the auxiliary to the Polk County Medical Society. A business meeting followed a dinner at Clark's restaurant.

Present were: Mrs. R. L. Cline and Mrs. John G. Lester of Lakeland; Mrs. R. H. Mooty, Winter Haven; Mrs. A. J. Barranco and Mrs. B. Y. Pennington of Lake Wales; Mrs. G. H. Carefoot, Fort Meade; and Mrs. C. H. Murphy, Mrs. J. G. Gilchrist, Mrs. L. L. Lancaster, Mrs. J. L. Hargrove and Mrs. W. F. Peacock of Bartow.



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| S. F. 2    | Surgeon's Report                          | F. I. C. 7A | Employee's Notice to Reject                          |
| S. F. 3    | Employer's Supplementary Report of Injury | F. I. C. 8  | Employer's Notice to Waive Exemption                 |
| S. F. 4    | Agreement as to Compensation              | F. I. C. 9  | Final Medical Report                                 |
| S. F. 5    | Final Compensation Settlement Receipt     | F. I. C. 10 | Employee's Notice of Injury to Employer              |
| F. I. C. 6 | Notification of Securing Compensation     | F. I. C. 11 | Election of Employee where a Third Party is Involved |

F. I. C. 12 Notice to Controvert Payment of Compensation

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## STATE AND SECTIONAL MEETINGS

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association.....	J. Sam Turberville, Century.....	Shaler Richardson, Jacksonville	Jacksonville, Apr. 28-30, 1941
Florida Medical Districts:		Stewart Thompson, Jacksonville	Tallahassee, October 2, 1941
A—Northwest .....	B. A. Wilkinson, Tallahassee...	" " "	Gainesville, October 3, 1941
B—North Central .....	William S. Nichols, Lake City...	" " "	St. Augustine, October 4, 1941
C—Northeast .....	Robt. B. McIver, Jacksonville...	" " "	Bartow, October 31, 1941
D—Southwest .....	W. C. McConnell, St. Petersburg	" " "	Orlando, November 1, 1941
E—South Central .....	A. M. Sample, Ft. Pierce.....	" " "	Ft. Lauderdale, October 30, 1941
F—Southeast .....	Kenneth Phillips, Miami.....	" " "	Mobile, Ala., Apr. 15-17, 1941
Alabama Medical Association .....	Samuel A. Gordon, Marion.....	D. L. Cannon, Montgomery	Macon, May 13-16, 1941
Georgia, Medical Assn. of .....	J. C. Patterson, Cuthbert.....	E. D. Shanks, Atlanta .....	
Florida—			
Chapter, Am. College Phys.....	Louie M. Limbaugh, Jacksonville	Kenneth Phillips, Miami .....	Jacksonville, April 28, 1941
State Dental Society.....	I. W. Shields, Miami.....	W. P. Wood, Jr., Tampa .....	Hollywood, 1941
Soc. of Derm. and Syph.....	Alan Brown, Jacksonville.....	Lauren M. Sompayrac, Jacksonville	Jacksonville, April 28, 1941
East Coast Medical Association	J. S. Stewart, Miami.....	J. Ralston Wells, Daytona Beach	
State Hospital Association...	W. L. Shackelford, W. Palm Bch	Mr. T. F. Alexander, Jacksonville	New Orleans, 1941
Assn. of Industrial Surgeons	A. M. Bidwell, Tampa.....	T. H. Roberts, Lakeland.....	Jacksonville, April 27, 1941
Medical Postgraduate Course	Turner Z. Cason, Jacksonville	Chairman	Jacksonville, June 23-28, 1941
Soc. of Ophthal. & Otol.....	H. Marshall Taylor, Jacksonville	Carl E. Dunaway, Miami	Jacksonville, April 28, 1941
State Nurses Association...	Mrs. M. Stetson, St. Petersburg	Mrs. Phyllis Leonard, St. Augustine	
Pediatric Society .....	Warren W. Quillian, Coral Gables	G. N. Leonard, Miami Beach	Hollywood, Nov. 1941
Public Health Association .....	L. J. Graves, Tallahassee .....	E. M. L'Engle, Jacksonville	Orlando, December, 1941
Radiological Society .....	J. H. Lucinian, Miami .....	E. M. Hendricks, Ft. Lauderdale	Jacksonville, April 27, 28, 1941
Railway Surgeons' Association	Leland F. Carlton, Tampa.....	W. C. Page, Cocoa .....	Jacksonville, April 28, 1941
State Pharmaceutical Association	Mr. P. A. Penberthy, Tampa .....	Mr. R. K. Richards, Ft. Myers ..	Jacksonville, May, 1941
Tuberculosis & Health Assn.	Mr. E. M. Newald, Orlando....	Mrs. C. R. Whitaker, Eustis .....	
Chattahoochee Valley Med. Assn	Frank K. Boland, Atlanta.....	Robert B. McIver, Jacksonville...	Jacksonville, July 8-10, 1941
Gulf Coast Clinical Society...	J. S. Turberville, Century .....	J. C. McSweeney, Pensacola .....	Pensacola, October, 1941
S. E. Sec., Am. Cong. Phys. Ther.	E. C. MacCordy, St. Petersburg	Kenneth Phillips, Miami .....	Chattanooga, May 25-27, 1941
Southeastern Surgical Congress	Irvin Abell, Louisville .....	B. T. Beasley, Atlanta .....	
Southern Medical Association...	Paul H. Ringer, Asheville.....	Mr. C. P. Loran, Birmingham .....	St. Louis, Nov., 1941
Suwannee River Medical Society	T. H. Bates, Lake City.....	H. S. Howell, Lake City.....	



COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	James M. Nixon, M.D. Panama City	William C. Roberts, M.D. Panama City		12	8	A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia Santa Rosa	W. P. Hixon, M.D. 24 W. Chico St. Pensacola	A. I. Steinhilber, M.D. State Board of Health Bldg. Pensacola	2nd Tuesday 8:00 P. M.	40	34	
	Walton Okaloosa	A. G. Williams, M.D. Lakewood	B. H. Spirea, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington Holmes	N. J. Dawkins, M.D. Vernon	B. W. Dalton, M.D. Vernon		7	6	
	Franklin Gulf	Thos. Meriwether, M.D. Wewahatchka	J. R. Norton, M.D. Fort St. Joe	3rd Thursday	7		A-2-'41 H. A. Wilkinson, M.D. Tallahassee
B	Jackson Calhoun	M. Q. Hurus, M.D. Blountstown	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	10	8	
	Leon Gadsden Liberty Wakulla Jefferson	Sterling E. Willbolt, M.D. Quincy	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	11	19	Northwest District (A) Tallahassee October 2, 1941
	Columbia Baker, Hamilton	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	Thomas H. Bates, M.D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	11	7	B-3-'41 W. S. Nichols, M.D. Lake City
	Madison Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		8		
	Taylor Dixie, Lafayette	R. H. J. Taylor, M.D. Ferry	Charles A. O'Quinn, M.D. Ferry	Last Friday 8:00 P. M.	8	5	
C	Alachua Bradford, Gilchrist Union	J. Lee Summerlin, M.D. 1 Baird Bldg. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	10	1	B-4-'42 J. L. Summerlin, M.D. Gainesville
	Marion Levy	Eugene G. Peek, M.D. Commercial Bk. & Tr. Bldg. Ocala	Harry F. Wait, M.D. Box 146 Ocala	3rd Thursday 12:30 P. M.	25	17	
	Pasco Hernando Citrus	William B. Moon, M.D. Crystal River	G. R. Crockmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	15	100%	North Central District (B) Gainesville October 3, 1941
	Duval Clay, Nassau	S. R. Norris, M.D. Medical Arts Bldg. Jacksonville	F. Gordon King, M.D. 422 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	188	176	C-5-'41 B. B. McIvor, M.D. Jacksonville
	St. Johns	A. C. Walkup, M.D. East Coast Hospital St. Augustine	Charles C. Grace, M.D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	11	10	N. E. District (C) St. Augustine October 4, 1941
D	Pinellas	C. M. Knight, M.D. Palatka	Allen P. Gurganious, M.D. Palatka	2nd Tuesday in Feb., April, June Aug., Oct., Dec. 7:00 P. M.	11	7	C-6-'42 Maxmillan Stern, M.D. Daytona Beach
	Volusia Flagler	J. R. Chandler, M.D. 110 S. Ridgewood Ave. Daytona Beach	R. L. Miller, M.D. 258 1/2 S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	43	35	
	Hillsborough	Robert G. Nelson, M.D. 712 Citizens Bank Bldg. Tampa	James S. Grable, M.D. 611 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	110	67	D-7-'41 W. C. McConnell, M.D. St. Petersburg
	Manatee	W. E. Wentzel, M.D. Box 245 Bradenton	Wm. D. Sugg, M.D. Bradenton Bank Bldg. Bradenton	3rd Tuesday 7:00 P. M.	14	12	
	Pinellas	Major N. W. Cable, M.C. 116th Field Artillery Camp Blanding	W. C. McConnell, M.D. 313 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	101	100%	
E	Sarasota	John C. Patterson, M.D. Palmer Natl. Bk. Bldg. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	15		
	DeSoto-Hardee High- lands-Charlotte- Gladys	Hartley E. Boorem, M.D. 37-39 S. Ridgewood Drive Sebring	Howard V. Weems, M.D. 22 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	19	D-8-'42 H. V. Weems, M.D. Sebring
	Lee Collier, Hendry	M. F. Johnson, M.D. Box 1266 Fort Myers	H. Quillian Jones, M.D. 18-20 Leon Bldg. Fort Myers	3rd Friday 7:30 P. M.	17	16	
	Folk	Bruce R. Tinkler, M.D. Lake Wales	S. Edgar Watson, M.D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	60	51	Southwest District (D) Bartow October 31, 1941
	Brevard	T. C. Kenaston, M.D. 501 Delannoy Ave. Cocoa	I. K. Hicks, M.D. Melbourne	3rd Wednesday	11	9	E-9-'42 J. R. Chappell, M.D. Orlando
F	Lake Sumter	Marion B. O'Kelley, M.D. 203 First Natl. Bank Bldg. Leesburg	Clyde F. Bowle, M.D. 1112 W. Main St. Leesburg	1st Thursday 12:30 P. M.	19	10	
	Orange Osceola	Frank D. Gray, M.D. 19 W. Washington St. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87	55	
	Seminole	Guy S. Solman, M.D. Sanford Clinic Sanford	Wade H. Garner, M.D. Sanford	2nd Monday 7:00 P. M.	14	11	South Central District (E) Orlando November 1, 1941
	St. Lucie-Okeechobee- Indian River-Martin	Joseph B. Kollar, M.D. Vero Beach	Adrian M. Sample, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	18	100%	E-10-'41 A. M. Sample, M.D. Ft. Pierce
	Broward	Frank Denniston, M.D. 616 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	41	38	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	Wilbur O. Arnold, M.D. Box 1785 W. Palm Beach	William E. Bippus, M.D. 601 Guaranty Bldg. W. Palm Beach	4th Monday 8:00 P. M.	66	50	S. E. District (F) Ft. Lauderdale October 30, 1941
	Dade	C. Larimore Perry, M.D. 525 N. E. 15th St. Miami	Herbert Elchert, M.D. 538 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	329	140	F-12-'41 Kenneth Phillips, M.D. Miami
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	

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# The JOURNAL of the Florida Medical Association, Inc.

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No. 11

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## CONTENTS

THE N.Y. ACADEMY  
OF MEDICINE  
JUN - 4 1941

Exanthem Subitum (Roseola Infantum) Councill C. Rudolph, M. D., St. Petersburg	547
Staphylococcus Toxoid in Impetigo Theodore F. Hahn, M. D., DeLand	549
A Review of the Treatment of Atrophic Arthritis John P. Rowell, M. D., St. Petersburg	551
A Summary of Ten Years' Practice in Obstetrics William C. Thomas, M. D., Gainesville	557
Hematuria as a Result of Sulfanilamide Therapy; Report of Two Cases Nathan Weil, Jr., M. D., Jacksonville	562
Excretory Function of the Small Intestine in Renal Insufficiency E. B. Campbell, M. D., St. Petersburg	565
Editorials: Annual Convention, Jacksonville; Florida in Vanguard of Progress in Graduate Medical Education; Faculty for the Ninth Annual Short Course for Doctors; Growing Need for Neurologic Training	568
Irregulars Convicted	570
Marriages and Deaths	570
State News Items	570
Component County Societies	572
Abstract Department	574
State and Sectional Meetings	578
Component Societies by Districts	579

### NEXT SESSIONS

American Medical Association, Cleveland, June 2-6, 1941  
Florida Medical Association, Palm Beach, 1942  
Southern Medical Association, St. Louis, November, 1941





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*Kugelmass: "Newer Nutrition in Pediatric Practice."*  
J. B. Lippincott Co., Philadelphia, 1910, p. 334.

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*Ariyama & Takahasi, Biochemische, Zeitschrift, vol. 216, p. 269, 1929.*

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*Marriott: "Infant Nutrition."*  
C. V. Mosby Co., St. Louis, 1930, p. 45.



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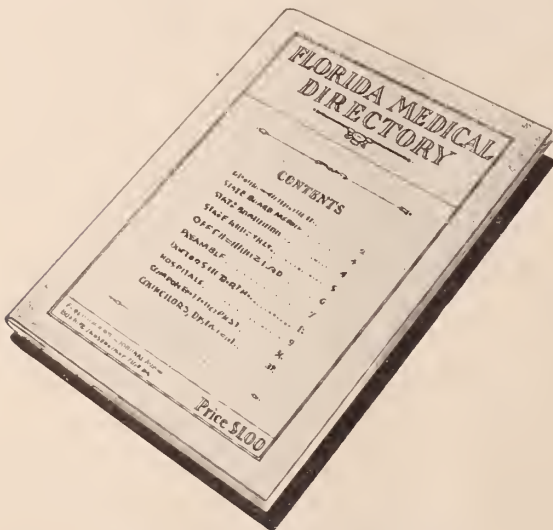


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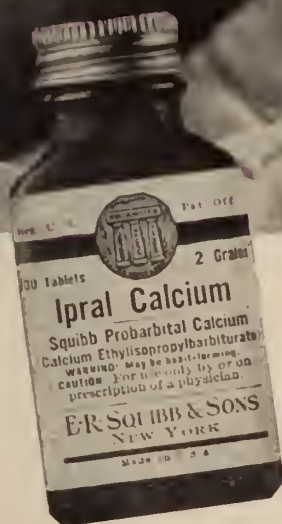
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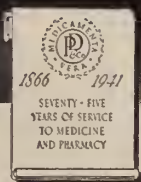
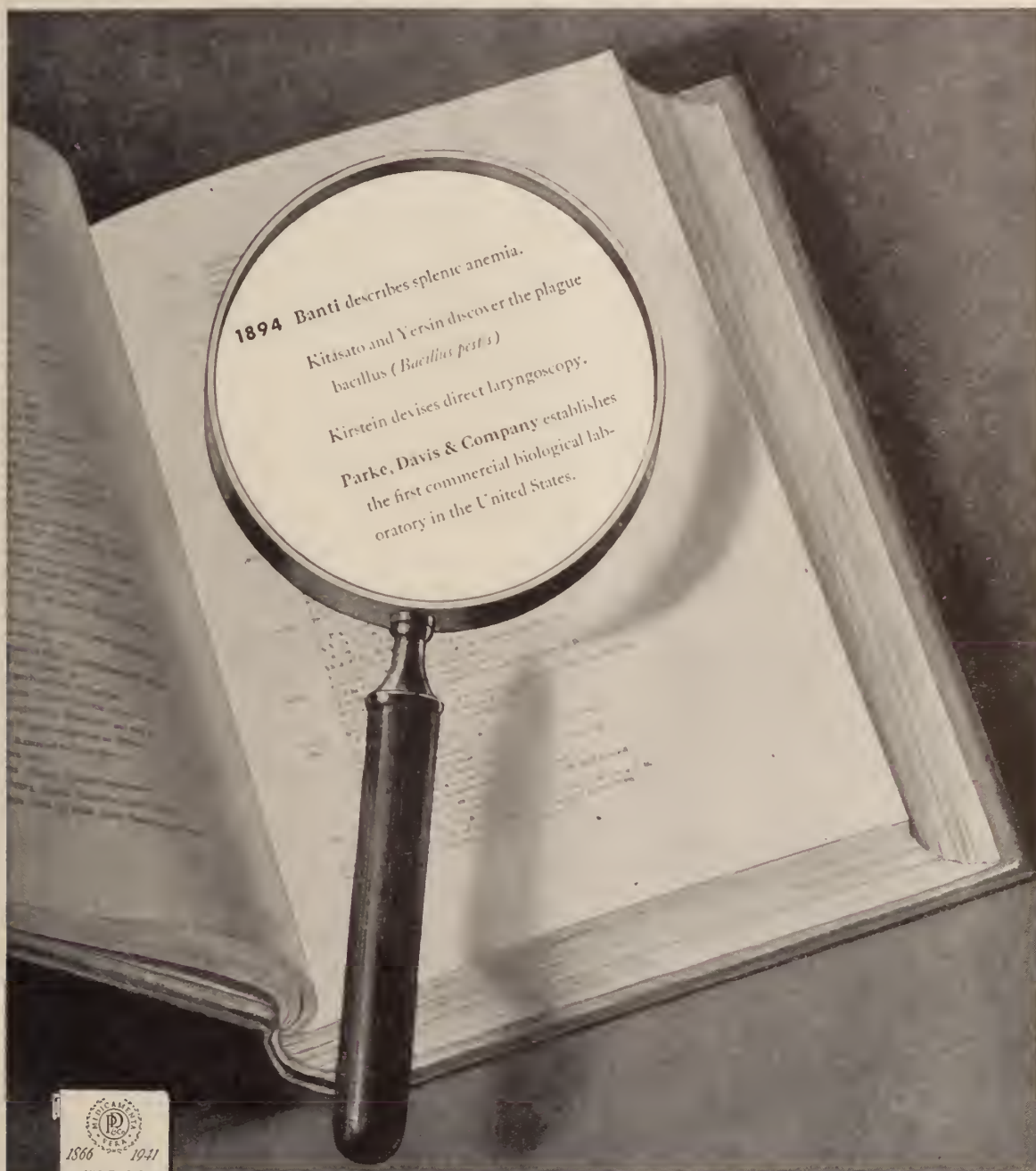
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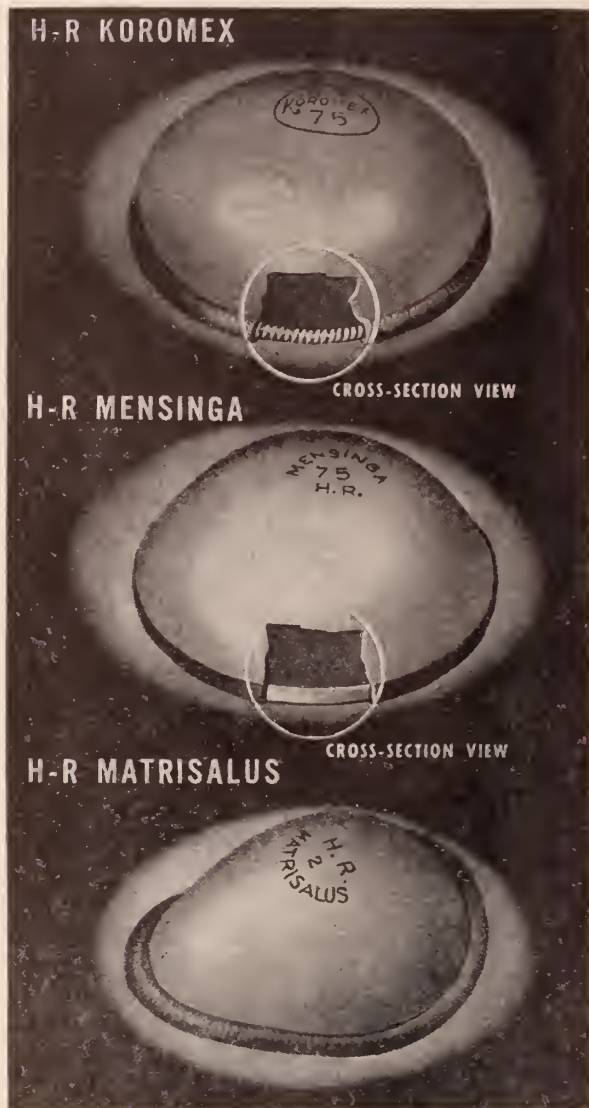
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\*Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154  
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Councill C. Rudolph, M. D.  
St. Petersburg

Today after fifteen years of practice devoted entirely to pediatrics, I must open this paper with the conscientious admission that all too many fevers occur whose origin, obscure at the onset, remains obscure for the duration of the illness. This is not an admission of ignorance on my part, but an expression of the conviction that in children febrile attacks occur which are still elusive and without diagnostic criteria. This observation is true particularly of the transitory overnight rise in temperature which is resolved within twenty-four hours after the proverbial enema has been given. Knowing the inherent demand on the part of the laity for a diagnosis, I often wonder what explanation the profession gave for such comparatively recently described conditions as undulant fever, agranulocytopenia, infectious mononucleosis and the like before the present-day diagnostic criteria, both clinical and laboratory, were established.

It is not within the scope of this short paper to present a discussion of the multitude of factors that must be considered in a problem of this nature, but rather to call attention to a little known fever occurring in infants and young children whose incidence is far from infrequent in Florida and whose diagnosis at the onset and for several days thereafter is in many cases impossible. Because of the violent febrile reaction which frequently accompanies the prodromal period, the physician is often greatly perturbed and the family in a frantic state of mind before the characteristic exanthem develops. The disease is apparently either a recent one or has been confused with aberrant rubeola or rubella for many years since the condition was first described by Zahorsky<sup>1</sup> as recently as 1910.

In a routine discussion of exanthem subitum it is much easier to relate the unknown than the known. No specific etiologic agent has been uncovered, but the condition has been tentatively classified as one caused by a filtrable

virus. The pathology is likewise obscure although some authors believe that there is a concomitant infection of the pharynx with a moderate inflammatory reaction. Whether this condition is an actuality or the conclusion merely arises from the pediatrician's devotion to the throat as the seat of pathology in childhood, I am unable to state, but in my experience the pharynx has been normal in a great majority of cases.

Sex incidence is equally divided. The question of seasonal incidence is mildly controversial, but Barenberg and Greenspan<sup>2</sup> believe the greatest number of cases occur in the fall. The one factor of incidence about which all authors agree is that the vast majority of cases occur in children under 2 1-2 years of age. In sixteen years' practice I remember only 5 cases occurring in patients beyond this age. The reason for the early establishment of immunity in children who have not acquired the disease is unknown. Barenberg and Greenspan<sup>2</sup> observed several children with temperature and leukopenia characteristic of exanthem subitum on whom no exanthem developed although the fever terminated typically by crisis. This group, however, comprised only a very small minority of their cases and certainly could not appreciably affect the almost universal adherence to this age group.

The period of incubation as observed by Cushing<sup>3</sup>, was established at an average of ten days. The disease may be carried directly or by a third person.

Symptomatically, exanthem subitum has no specific signs nor symptoms during the prodromal period. As a matter of fact, this lack of tangible findings in a child under 2 1-2 years of age should immediately throw the light of suspicion upon this disease. The onset is usually abrupt, and the febrile reaction is severe. A temperature of 105 F. occurs not infrequently. Headache, nausea, and irritability are common as in other febrile diseases.

Four things lead to a suspicion of exanthem subitum: (1) the lack of specific findings; (2) an extremely high fever out of proportion to the real or imagined involvement of the throat; (3) a lack of prostration commensurate with the elevation of the temperature; and (4) the

<sup>1</sup>Read before the Fourth Annual Meeting of the North Central Medical District, Lake City, October 4, 1940.

blood picture. Almost invariably a rather pronounced leukopenia with a relative lymphocytosis is present. Confronted with these factors and the absence of other pathology, one may be fairly certain of his ground in predicting the appearance of the exanthem coincidentally with the subsidence of the fever, usually on the fourth or fifth day. The rash more nearly resembles that of measles than any of the other eruptive fevers. Maculae, dull red in color and at times confluent, usually make their appearance first on the face and then extend to the neck, chest and abdomen. The spread is usually complete within twenty-four or thirty-six hours, and then the rash fades so rapidly that at the end of three days, there is usually no evidence of its occurrence. No subsequent desquamation takes place.

The prognosis is invariably good, but the differential diagnosis requires careful consideration. Exanthem subitum is most frequently confused with German measles and ordinary measles although there is little occasion for confusion in either case. The absence of coryza, Koplik's spots and involvement of the mucous membranes together with the receding temperature as the rash appears should leave little doubt for in measles the temperature remains elevated until the rash is fully developed. German measles has no preliminary hyperpyrexia, and usually the appearance of the rash is the first evidence of disorder. Dengue should be eliminated by the absence of a secondary rise in temperature and also the absence of severe prostration accompanying the early elevation of temperature.

Barenberg and Greenspan<sup>2</sup> published recently a comprehensive study of exanthem subitum, especially from the standpoint of its epidemiology and hematology. In an epidemic of 27 cases occurring in the Jewish Home for Children in New York, between September 30 and Dec. 23, 1938, they determined that the disease was definitely, though mildly, infectious, as from 35 to 45 per cent of the exposed children contracted the disease. The period of incubation, averaging ten days, was in agreement with that reported by Cushing<sup>3</sup>. In a few cases a modified form of the disease developed, identical except for the absence of eruption.

The blood work on these 27 cases was of particular interest as 55 total and 58 differential counts were made in 21 of the 27 cases. A total

count of 6,750 leukocytes and a differential count of 70 per cent lymphocytes were considered indicative of leukopenia and lymphocytosis respectively. In 16 of the 21 cases definite leukopenia was present, and in the other 5 the count varied from 7,000 to 18,000. On the third day leukopenia developed in 50 per cent of the patients and on the fourth day in 64 per cent. Lymphocytosis was present in 66 per cent of the cases on the third day and in 100 per cent on the fourth day.

At the same time 16 children with grippal infections were used as controls for blood studies. Of these, on the fourth day only three had leukopenia and lymphocytosis whereas in cases of exanthem subitum leukopenia would have been present in 100 per cent and lymphocytosis in 60 per cent of the cases. The clinical course was also different in that the elevated temperature of the patients used as controls continued for from six to nine days instead of for the usual four days characteristic of exanthem subitum. These findings are in contradiction to the claims of Abb<sup>4</sup> that exanthem subitum is only a grippal infection with an exanthem. Certainly in the cases that have come under my observation, the respiratory involvement is practically nil compared to that of the grippal infection.

Rosenbusch<sup>5</sup> stated that probably all children described as having had 2 cases of measles and those with so-called "infantile measles" had cases of exanthem subitum mistakenly diagnosed. He also expressed the belief that otitis and other evidences of infection of the upper part of the respiratory tract are concurrent influenzal infections coincident with exanthem subitum.

Although the disease is almost entirely limited to very young children and infants, Cutts<sup>6</sup> described a case in an adult aged 31 years. Jones<sup>7</sup> reported 2 cases in which the patients had a temperature of 105 and 106 F. with repeated convulsive seizures during the attack.

To my mind the disease is undoubtedly increasing in incidence in Florida. During the last year there came under my observation 23 well defined cases and several that followed the clinical course without any subsequent eruption, which I believe were nevertheless actual cases. I remember no such frequency during the early years of my practice.



While exanthem subitum is a disease of no great importance inasmuch as the prognosis is invariably good, yet its recognition, preferably in the early stages, is of practical value for thereby consideration of other diseases with more serious pathology becomes unnecessary. The term exanthem subitum has been used instead of roseola infantum to avoid confusion with German measles, one of whose synonyms is also roseola.

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### STAPHYLOCOCCUS TOXOID IN IMPETIGO

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In 1929, Burnet<sup>1</sup> published extensive studies on the toxin of the staphylococci. His work has been confirmed frequently and has led to the conclusion that this toxin is a true exotoxin. This exotoxin has a specific and highly destructive action on cells and tissues of the sheep, cow, monkey, rat, guinea pig, cat, horse and man, especially affecting those of the rabbit, producing hemolysis, disintegration of leukocytes, and necrosis of epidermal and subcutaneous tissues. Intravenous injection of small amounts of staphylococcus toxin, as first reported in 1906 by Kraus and Pibram<sup>2</sup>, will cause death in a few minutes in small experimental animals, and this effect is used to measure units of lethal amounts of the toxin.

#### STAPHYLOCOCCUS TOXOID

As a result of studies with the staphylococcus toxin, and by analogy with Roman's work on diphtheria toxoid, Burnet<sup>1,2</sup> in 1929 and 1931 and Dolman<sup>3</sup> in 1932 showed that the staphylococcus exotoxin could be detoxicated by the

addition of formaldehyde solution while still retaining its antigenic properties. An active immunity produced in the rabbit and horse against the hemolytic, demonecrotic and lethal properties of the toxin by means of staphylococcus toxoid thus prepared was found also to give a passive immunity against the exotoxin of all strains of staphylococci. After experiments on animals proved the efficacy of this toxoid in producing antibodies, it was tried out on human beings, and after a series of injections, definite though variable increases in staphylococcic antibodies were found in their serums.

In 1933, Dolman<sup>3</sup> reported the results of a study of the clinical use of this toxoid in staphylococcic infections in human beings. Furunculosis was the chief disease studied, but other staphylococcic infections were not ignored. He noted rapid and great improvement in all cases treated under a definite plan of graded increase in subcutaneous administration of the toxoid. Some of the infections were of years' standing and had resisted all previous forms of therapy. He made no report on the duration of immunity in these cases. His toxoid was prepared according to definite standards and required the use of no autogenous material for the production of toxoid. It is interesting to note in his study that the circulating antibodies in patients with furunculosis, even those who had suffered for years, were no greater or even less than in those who had had no such infections, whereas staphylococcic infections of the bones and muscles regularly produced an increased number of antibodies.

#### STAPHYLOCOCCIC IMPETIGO

In the past four years we have been using a commercial staphylococcus toxoid in the treatment of various staphylococcic infections. This discussion, however, is limited to a description of its use in cases of pustular impetigo.

Staphylococcic impetigo is a pustular form of that class of skin diseases. It is often called Bockhart's impetigo. In this disease the lesions vary from a pinhead to a pea in size, are usually flat and generally are crusted; they are discrete with indurated borders, and the individual lesions show little tendency to spread peripherally as in streptococcic impetigo. They usually occur around a hair follicle, chiefly on the legs, arms, scalp and neck, less

often on the face and abdomen. The eruptions are observed more frequently in the spring and summer, and in my series they occurred with greater frequency in children.

When I first became acquainted with this disorder on arrival in Florida, it was the major item in a large group of skin diseases which the native population called "Florida sore." Before using staphylococcus toxoid in the treatment of these conditions I was impressed with how little success was attained and how many relapses occurred in spite of all forms of therapy, including tincture of green soap, bichloride of mercury washes, ammoniated mercury ointment, sulfur and ultraviolet rays. Cultures of pustular lesions showed *Staphylococcus albus* or *aureus* in 60 per cent of the cases.

#### TREATMENT

The dosage used in treatment is that recommended by the manufacturer, whether strength 1 or 2 is used. Doses are given every fourth day, subcutaneously or intramuscularly, with an increase in each dose as recommended, and treatment is continued until three doses have been given after involution and the disappearance of all lesions. In the average case, from six to eight doses were usually sufficient to effect a cure. The longest series of injections in any patient was fourteen. I have seen no recurrences of staphylococcic impetigo in the four years in which I have used this toxoid, but of course, some of the patients have moved or may have gone elsewhere if the disease recurred. Four of the patients have been followed for from two to four years and have remained free of staphylococcic infections. No other treatment was employed in my cases while staphylococcus toxoid was being used, except for cleanliness and dressings of the individual and open lesions. Iron, codliver oil and diets were used to correct the anemia and malnutrition frequently observed in children with this condition. It was surprising to note the frequency of parasitic infestations in the children.

#### REPORT OF CASES

Case 1.—A white boy aged 8 was treated in April 1936 for follicular impetigo on the legs. After treatment for six weeks with ammoniated mercury and ultraviolet irradiation with seeming cure, he suffered a relapse in one month. He was then given six doses of staphylococcus toxoid, dilution 1, at intervals of four days. The initial dose was 0.1 cc., and each succeeding dose was increased by 0.1 cc. There was no recurrence of staphylococcic infection in the next two years.

Case 2.—A white girl aged 7 was treated in August 1938 for numerous follicular impetiginous ulcers on the legs. Associated conditions were anemia, hookworm dis-

ease and avitaminosis. She was given four doses of staphylococcus toxoid, dilution 1, every fourth day; beginning with 0.1 cc., each dose was increased by 0.1 cc. No lesions were observed after twenty days. There had been no recurrence when the patient was last seen in February 1939.

Case 3.—A white woman aged 25 was treated in December 1938. Following a scaly condition of both external auditory canals, there had developed a furuncular type of impetigo of the ear lobes and scalp behind the ears. A culture showed *Staphylococcus albus*. After seven injections of staphylococcus toxoid, dilution 1, at intervals of four days, all lesions were healed, and no new ones had appeared. Beginning with 0.1 cc., each dose was increased by 0.1 cc.

Case 4.—A white boy aged 2 was treated in July 1938 for follicular, crusted, impetiginous lesions of the ears, legs and face. Healed areas between new lesions showed much scarring, due to repeated reinfection for over six months. A culture showed *Staphylococcus aureus*. Given staphylococcus toxoid, dilution 1, beginning with 0.1 cc. and with each dose increased by 0.05 cc. every fourth day, the child was well after receiving fourteen injections.

Case 5.—A white boy aged 6 was treated in October 1938. Following a fungus infection of the feet, pustules and impetigo of the lower legs had developed. *Staphylococcus aureus* was present in the pustules. The patient was given staphylococcus toxoid, dilution 1, every fourth day. The initial dose of 0.1 cc. was increased by 0.1 cc with each successive dose, and all lesions were healed after four doses had been given. He was also given medication for fungus infection between the toes and for a heavy hookworm infestation.

Case 6.—A white girl aged 12 was treated in January 1940. Following an infected laceration of the hand, a follicular impetigo on the dorsum of the hand and fingers had developed. A culture demonstrated the presence of *Staphylococcus aureus*. After receiving four doses of staphylococcus toxoid, dilution 2, beginning with 0.03 cc. and increased each time by 0.03 cc., the patient was well and has had no recurrence in the last six months.

Case 7.—A white girl aged 5 was treated in September 1938 for pustules and crusted ulcers on the face and nose. The condition had not improved after treatment for two months with ammoniated mercury and other home remedies. A culture showed *Staphylococcus aureus*. Hookworm disease also was present. The lesions all disappeared and no new ones occurred after four doses of staphylococcus toxoid, dilution 1, had been given at intervals of four days, with the initial dose of 0.1 cc. being increased by 0.1 cc. for each successive dose.

Case 8.—A white boy aged 5 was treated in August 1935. From an abrasion on the arm there had developed an impetigo which showed *Staphylococcus albus* on culture. Home remedies used for four weeks had effected little improvement. He was given staphylococcus toxoid, dilution 1, every third day and required ten doses for complete disappearance of all lesions. Beginning with 0.02 cc., the dose was regularly increased by 0.02 cc. Small dosage was used as this was the first case in which I tried staphylococcus toxoid, and the child was known to react severely to vaccines and serums.

Case 9.—A white man aged 27 was treated in August 1938 for an impetigo of the face and head which seemed like impetigo contagiosa, but which did not respond to treatment with ammoniated mercury and showed *Staphylococcus aureus* on culture. At intervals of four days he was given staphylococcus toxoid, dilution 1, the initial dose of 0.1 cc being increased by 0.1 cc until 0.5 cc. was given as a maximum dose. He required nine doses in all before the lesions disappeared and ceased to recur.

Case 10.—A white girl aged 5 was treated in July 1935 for a staphylococcic infection of the legs and buttocks. Lesions both of furunculosis and impetigo were present. After she had received five doses of staphylococcus toxoid, dilution 1, at intervals of four days, the lesions were healed. Beginning with 0.2 cc., the dose was increased regularly by 0.2 cc. Doubling the doses did not seem to hasten involution of the lesions.

Case 11.—A white girl aged 8 was treated in July 1939 for ulcers on the legs of three months' duration.

The lesions were pustular and impetiginous, but the culture was negative. She was given staphylococcus toxoid, dilution 1, in 0.2 cc, doses every fourth day. The lesions were all healed after five doses had been given. Parasitic infestation also was present.

Case 12.—A white girl aged 3 was treated in September 1938 for a follicular impetigo of the cheeks, scalp and forehead. The lesions seemed to spread by groups of pustules. After the patient had been treated with home remedies for one month, staphylococcus toxoid, dilution 1, was administered every fourth day with 0.1 cc, as the first dose, and each dose thereafter was increased by 0.1 cc. When six doses had been given, all the lesions were healed.

Case 13.—A white girl aged 6 months was treated in September 1939 for ulcers on the legs of three weeks' duration. The ulcers were shallow, discrete and crusted. On culture *Staphylococcus albus* was recovered. The infant was given staphylococcus toxoid, dilution 2, beginning with an initial dose of 0.03 cc., which was increased with each dose by 0.03 cc. The lesions were healed after the administration of five doses and did not recur during the next year.

Case 14.—A white boy aged 8 was treated in September 1938 for a pustular type of impetigo of the feet which followed a fungus infection of the toes and soles. With treatment only for the fungus infection, the lesions did not heal in thirty days' time. Staphylococcus toxoid, dilution 1, was then administered with 0.1 cc. as the first dose. Thereafter each dose was increased by 0.1 cc., and when five injections had been given, the lesions were healed.

Case 15.—A white girl aged 7 was treated in November 1938 for "Florida sores" on both legs and thighs. They had been present for six months and gave evidence of repeated reinfection, scarring and widespread follicular infection characteristic of impetigo. The patient was given staphylococcus toxoid, dilution 1, in doses of 0.1 cc. every fourth day and was well after receiving nine doses. There had been no recurrence of the disease when she was seen in 1939.

#### SUMMARY

Commercial staphylococcus toxoid, bought on the open market and used in the dosage and frequency recommended, seems to be an efficient immunizing agent against all forms of staphylococcal infection. It seems particularly useful in the treatment of staphylococcal impetigo, often called "Florida sore" and treated long and ineffectually by other means. It must be used long enough to produce antibodies, as in my series of cases the patients who stopped treatment with less than four injections usually had recurrences. The course and number of injections varies with each patient, but the use of the toxoid definitely shortens the course of this form of impetigo. In a number of patients it would seem to have produced a lasting immunity. The conclusion, therefore, is warranted that staphylococcus toxoid, used as the only therapy, is an efficient remedy for staphylococcal impetigo.

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#### *Dreka Building*

### A REVIEW OF THE TREATMENT OF ATROPHIC ARTHRITIS

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The subject of this paper was originally "The Treatment of Arthritis" but this is entirely too large a subject to be covered, even cursorily, in a paper of this length. This will be merely a review, with special emphasis on the newer forms of therapy of atrophic arthritis. A definite distinction is made between the two great forms of chronic arthritis, atrophic or rheumatoid or infectious arthritis, and hypertrophic or degenerative or osteoarthritis.

Atrophic arthritis is a systemic disease involving chiefly the small joints, usually symmetrically. Typically there is a persistent fusiform swelling of the proximal phalangeal joints with some involvement of the wrists and ankles and occasionally of the larger joints. Roentgenograms show rarefaction of bones and some proliferation and irregularity of the cartilage with narrowing of the joint space. Pathologically, there is atrophy of muscles and periarticular tissues with proliferation of the synovial membrane, tending to lead to ankylosis.

Hypertrophic arthritis is the type of arthritis most commonly seen down here, both because of the predominantly older population, and because atrophic arthritis, like rheumatic fever, is not common in the warmer climates. Hypertrophic arthritis is not really a disease, but rather is a type of cartilagenous degeneration and osseous reaction to several different agents: trauma, gouty deposits, certain infections and unknown factors. It occurs almost constantly in elderly people and it is only when the involved joint is subject to unusual trauma or strain that symptoms develop, and the condition is dignified by the name hypertrophic arthritis. We cannot really cure hypertrophic or osteoarthritis any more than we can cure

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gray hair or arcus senilis, but we can remove the cause of the trauma or strain. Frequently the trauma is caused by overweight, but it can result from occupation, bad posture and deformities. Reducing the weight is often effective. As there is practically no danger of ankylosis, rest to the joint, and very little exercise, is advisable. Constipation is often a factor in these elderly people and regulation of the bowels is essential. Drugs are of very little value in this form of arthritis. Heat in all forms is very valuable and will be discussed under Physical Therapy.

It has been estimated that there are over 6,000,000 cases of rheumatism and allied diseases in the United States. This is by far the most common chronic disease and is ranked second in producing both temporary and permanent disability. In 1937 there were estimated to be more cases of rheumatism than the total number of all cases of heart disease, cancer, tuberculosis and diabetes. Yet, among chronic diseases, rheumatism ranked fourteenth as a cause of death. Atrophic arthritis probably constitutes about 20 per cent of these cases, but in thinking over these figures, we see what an enormous problem the treatment of this condition represents.

The old aphorism that where there are many treatments for a disease none is a cure, applies well to arthritis. In order to effect the greatest number of cures in arthritis, however, it is necessary to combine all the many different forms of treatment. It is of particular importance that the physician does not become too enthusiastic about one form of treatment to the exclusion of the others. Thus, some physicians have had excellent results with vaccine and concentrate too heavily upon it. Others rely too much on the removal of foci of infection, carrying this to extremes. Still others have some pet medicine or injection. For the best results in the treatment of arthritis one should have a well-rounded regimen, using every form of treatment without too much emphasis on any one. Until the exact cause of arthritis is known the treatment is somewhat like shooting in the dark. Therefore, we should use shot-gun therapy. Some famous "old man of medicine" once said: "Don't treat the disease, treat the patient." In arthritis we not only have to treat the patient, but we must treat the joints, the bowels, the

glands and everything about him, as well as to watch the diet. There are seven principles of treatment to be considered in arthritis: (1) general care of the patient, (2) diet including vitamins, (3) management of foci of infection, (4) vaccines, filtrates, etc., (5) medication, (6) orthopedic care, and (7) physical therapy.

### 1. GENERAL CARE OF THE PATIENT

We all know that atrophic arthritis is most prone to develop in the slender, asthenic, ptotic type of person who has a low level of general health. Therefore, our first consideration is to make this patient more vigorous and robust, and in general to raise his health level to the highest possible point. Rest is a very important factor, both physical and mental rest. When the arthritis is active, especially when there is low grade fever or elevated sedimentation rate, bed-rest is indicated. Rest, however, should be measured out in exact dosage. Too much rest is harmful, simply because ankylosis so rapidly sets in. The affected joints should be kept mobilized by slow rhythmic movements through the full range of motion in each direction once a day. After the acute phase has subsided, graduated exercises are started. This will be discussed under Physical Therapy. Mental rest should be encouraged. More specifically, the patient should avoid known sources of conflict and try to minimize nervous stresses, strains and responsibilities.

Many patients show a significantly low basal metabolic rate. This is not often associated with true hypothyroidism, but rather seems to indicate a slowed general tissue metabolism. There is less general muscular activity and also the tissues around the joints take less oxygen from the blood. Thyroid extract is often helpful in increasing the feeling of well-being and lessening the tiredness of which these patients always complain. Sometimes thyroid extract seems to have even a specific effect on lessening joint activity.

A mild secondary anemia is almost constantly present and should be vigorously treated. This anemia is often resistant to treatment but usually, if infection is eliminated and the diet is adequate, 12 grains of ferrous sulfate a day for from 4 to 8 weeks will be sufficient. If the anemia is very severe, especially if the disease is progressing, two or

three small blood transfusions will give the patient a much needed boost.

Some constipation is often present, usually with a dilated, atonic colon. This is especially true when the patient is of the stoop-shouldered, asthenic type, with general visceropotosis. Some form of mineral oil and agar emulsion is usually indicated, often with a little tonic laxative, such as cascara, in it.

## 2. DIET

Much has been written about what patients with arthritis should eat. Walter Bauer<sup>1</sup> summarized an extensive article on diet in arthritis by advising simply that patients should eat a diet high in calories, (unless they are overweight), high in vitamins and adequate in respect to calcium, phosphorus and iron. At the Arthritis Clinic of the Henry Ford Hospital considerable emphasis is placed on diet. It is felt that patients respond better if the highly refined carbohydrates and highly milled grains are omitted from the diet. Thus candy, jellies, jams and sweets of all kinds are omitted, also white bread, pastries and other white-flour products. As these are rather high-calory foods, their removal is offset by emphasis on the so-called protective foods, mainly fruits, vegetables, milk and whole grain products. This type of diet, with emphasis on the protective foods, supplies an abundance of vitamins and minerals. Only the extremely sedentary patient with a low caloric intake, or the patient with some functional gastrointestinal disturbance, will require the addition of vitamin concentrates.

Hypovitaminosis C has been considered a factor in the etiology of rheumatoid arthritis, and there is much to support this belief. The urinary excretion of cevitamic acid is uniformly low. Richard Jacques<sup>2</sup> found he was able to bring these low levels up to normal with adequate doses of cevitamic acid, but without any influence on the arthritis. He concluded that the low blood plasma levels and low urinary excretion of cevitamic acid were essentially an indication of infection and malnutrition. Vitamin B should be given only if there is some definite indication for it. Therapy with high-dosage vitamin D will be discussed under Medication.

As a general rule, rather than give vitamin concentrates it is much better to teach the pa-

tient correct eating habits so that he will be getting adequate food essentials in the years to come.

## 3. MANAGEMENT OF FOCI OF INFECTION

In the treatment of arthritis, there can be little doubt that removal of an obvious focus of infection is indicated. This procedure has been so accepted that the usual layman will finally "get that bad tooth out" when his shoulder starts aching. In fact, foci have been removed so promiscuously that we might say, "Where are the foci of yesterday?" Usually in a bad case of atrophic arthritis the foci have been removed early in the disease and often with benefit. Enough experience has been had to make us realize that foci of infection are not the sole cause of the disease, nor their removal the sole cure. If they were the chief cause of the disease, how could there be so many apical abscesses, badly infected tonsils, and chronic gallbladders, without resulting arthritis? It would seem that a focus of infection is just one more burden that overwhelms the arthritic's weakened constitution and its removal is often enough to tip the scales back so that the patient's natural powers of resistance are able to check the disease. As a rule, in early active arthritis, foci of infection should be energetically searched for and radically removed. Teeth are common offenders. Apical abscesses and peridental infection should be removed and all nonvital teeth viewed with suspicion. The interpretation of chronic sinusitis as a focus of infection is usually a function of the nose-and-throat specialist and the decision as to treatment is left to him. Chronically infected tonsils should be removed. The gallbladder, female pelvis, prostate, and even the colon should always be considered. According to Russell Cecil,<sup>3</sup> it is better treatment to remove the focus and then build up the patient, than it is to build up the patient before removing the focus. On theoretical grounds, one should get a culture from these foci and make a vaccine, but in practice these autogenous vaccines work no better than stock vaccines.

## 4. VACCINES AND FILTRATES

It is pretty generally agreed that atrophic arthritis is of infectious origin, and that some form of streptococcus is the causative agent. Yet in spite of the enormous amount of bacteriologic research, we can be no more specific than that. As early as in 1912, Dr. H. War-



ren Crowe isolated a strain of staphylococcus that he termed *Micrococcus deformans*, and considered it the cause of arthritis. Other investigators have isolated other organisms, usually some strain of *Streptococcus haemolyticus*. Rosenow isolated streptococci with a selective affinity and capable of producing arthritis on intravenous injections in animals. Nothing of practical value, however, has been brought over to the clinical side. Vaccines have had wide usage and have many proponents, but there is no doubt that they are losing favor. Philip Hench<sup>8</sup> stated he found it difficult to understand why vaccines should be expected to cure this disease of unknown origin, when we know of no infectious disease of known etiology cured by vaccine. However, Russell Cecil<sup>9</sup> stated that he had seen too many good results follow the use of vaccine to give up this form of treatment. He used a stock Strep. haemolyticus vaccine intravenously starting with very small doses, about 50,000 organisms, and very gradually increasing the dose sometimes to as high as a billion. The injections were given every four or five days, and continued for at least three or four months. He believed the vaccine worked more as a desensitizing agent than as an immunizing one. If vaccine was used, particular care was taken to avoid over-dosage, as severe reactions with permanent joint damage may result.

Sidel and Abrams<sup>4</sup> recently made an interesting controlled study on the use of vaccine. They treated 25 patients with rheumatoid arthritis with ascending doses of stock streptococcus vaccine and as a control, treated 33 similar patients with weekly injections of 1 cc. of normal saline. They reported that 68 per cent of the patients in the vaccine group were benefited, yet 72 per cent of the saline controls were benefited as well. They concluded that the value of vaccine lies principally in the encouragement and continued interest of the physician, as exemplified by the weekly injection.

There is no question but that the use of vaccines is on the decline. There is a good theoretical basis for their use and when more is known about them, they may become more beneficial. At the present time, however, they have no place in the routine treatment of arthritis. If vaccine injections are used chiefly to maintain contact with the patients in order

to control other factors, this should always be kept in mind and the injection should not become a fetish to the neglect of other measures.

## 5. MEDICATION

There is no specific medicament of much benefit in arthritis. Salicylates are of proved merit, but their only effect is as an analgesic. The best tolerated and least irritant of these is aspirin and it should be given in fairly large doses, 30 to 60 grains a day. Occasionally a little codeine is needed but it has been stated that if the pain of arthritis is severe enough to require opiates, another diagnosis should be considered. There are numerous medicines advertised for arthritis, most of them being merely fancy analgesics. Arthranol, lyxanthine astier and Oxoate B are calcium and iodide combinations without rationale or clinical acceptance. Tolysin and causalin are chiefly analgesics, the former being neocinchophen, and the latter having a pyrazolon nucleus; both should be viewed with some suspicion.

Iron and thyroid extract often have a place in treatment and have been mentioned. Benzdrine sulfate may be used to counteract the distressing fatigue of arthritis, 20 mg. being given in the morning and 10 mg. at 11 a. m.; it is necessary to watch carefully for side effects of nervousness and insomnia. Sulfanilamide has been given a thorough trial and has been proved of no therapeutic value in this disease. Bee venom has had wide usage in Europe and has been tried in several clinics in this country. In certain cases it is undoubtedly helpful, but severe local reactions together with discouraging results have caused its popularity to decrease. Many think of it now only as a method of counterirritation.

Sulfur was first introduced as a treatment for arthritis in 1932, and during 1934 and 1935 many enthusiastic, favorable reports appeared in the literature. However, a little later larger and controlled series were published and the attitude toward sulfur became more critical. In October, 1938, the Council on Pharmacy and Chemistry published a report on colloidal sulfur in the treatment of chronic arthritis which was definitely unfavorable. It stated that not one of the leading arthritic clinics of the United States had adopted the use of sulfur in the treatment of this malady. In April of this year it was reported that many



more physicians were abandoning its use than were continuing it. Sulfur certainly has no place in routine treatment and it is doubtful if it is even worthy of a trial in those stubborn cases in which the patient fails to improve on other therapy.

Massive doses of vitamin D were first used in 1935 and scattered reports were obviously over enthusiastic and uncritical, while some were conflicting and were stressing the toxic reactions. In August of 1939 the Council on Pharmacy and Chemistry held that there was not sufficient evidence to warrant the acceptance of viosterol preparations of high potency for use in the treatment of arthritis. Because of the undoubted benefit in some instances, however, it was believed that further consideration should be given this therapy as a research investigation.

A report was published in the May 1, 1940 issue of the *New York State Journal of Medicine*<sup>3</sup> which was definitely favorable to this therapy. The preparation used by the authors was ertron which is said to be less toxic than the other preparations of high potency obtained by ultraviolet irradiation of ergosterol. They reported definite improvement in 90 per cent of 23 cases and good to excellent results in 60 per cent. There was little difficulty with toxic reaction, except that nausea resulted when doses of over 300,000 units were used. The doses suggested by the authors were from 200,000 to 300,000 units of vitamin D per day for a period of at least six weeks. The results were slow to appear, but became progressively more noticeable after from one to two months.

This ertron preparation has not been accepted by the Council and is still practically in the experimental stage, but on the basis of this report it may deserve a trial in certain obstinate cases of arthritis. The expense deserves some consideration since these capsules cost 10 cents apiece and the recommended dosage is 5 or 6 a day for from six to eight weeks. If, however, this therapy is effective, the expense is of little consequence should it prevent months or years of disability.

The use of gold, or chrysotherapy, in arthritis was first introduced by Forrestier in France about 1927, and has since had very extensive clinical and research investigation. Chrysotherapy was originally viewed with considerable suspicion, both because of the lack of

rationale, and because of the high incidence of toxic reactions. One author wondered if the only real use for gold in this disease was the transference of gold from the patient's pocket to that of the physician. However, additional evidence is continually building up that gold is of indubitable value in the treatment of chronic arthritis. Philip Hench said of it:

The curve of acceptance of most "new" treatments for arthritis that are destined to be discarded rises rather rapidly, reaches its peak in about 3 to 5 years, then falls as adverse reports begin to outnumber the optimistic ones. Finally, use of the treatment in any significant degree dies out after about 8 to 10 years. It therefore seems significant that the curve of acceptance of chrysotherapy is still rising after 10 years of use.

Kenneth Stone<sup>4</sup> called it a method which gives results incomparably better than any obtained hitherto. Dramatic cures are sometimes obtained, while relief of pain, swelling and stiffness is so common that the efficacy of gold can scarcely be doubted.

The effect of gold is to produce some initial aggravation followed shortly by inactivation of the arthritic process. Sedimentation rates sometimes show an initial rise after the first month of treatment, but then progressively fall.

Always emphasized in any discussion of gold therapy is the incidence of unfavorable and toxic reactions. These range from a slight metallic taste to fatal blood dyscrasias. Only one fatality has been reported in the American literature and continued effort is being made to develop new compounds and new techniques to lessen the toxic reactions. Nevertheless, gold is a dangerous drug and must be used cautiously. Any renal or hepatic disease, or blood abnormality must be considered a contraindication. The skin and urine should be checked weekly and the blood examined every two or three weeks.

Sashin, Spanbock and Kling<sup>5</sup> reported a series of 80 patients with active advanced rheumatoid arthritis treated with gold. These patients had all been refractory to other therapeutic measures. Follow-up studies made from six months to five years after treatment showed 43 per cent of the 80 patients to be markedly improved and 39 per cent moderately or slightly improved—a total of 82 per cent who were improved to some extent. Local and systemic reactions occurred in 23 per cent of the patients which is about the usual percentage reported. The authors concluded the report by stating:

Gold therapy is indicated only in cases of rheumatoid arthritis. The high percentage of marked improvement, the moderate occurrence of relapses, and the efficiency

even after prolonged duration of the disease establish gold salts as a valuable treatment of rheumatoid arthritis. We concur with the opinion of other workers that it is superior to any treatment which we have to date. On the other hand, the considerable percentage of unsatisfactory results and the occurrence of toxic reactions lead to the conclusion that gold therapy, while a decided step forward, is still not the ideal treatment for rheumatoid arthritis.

There is no uniform method of giving gold or any single standard preparation. The common preparation in use in this country is gold thiosulfate and the usual dosage is from 25 to 50 mg. once or twice weekly until 1 gram of gold thiosulfate has been administered. This course is repeated at least once, even in the absence of clinical symptoms. Another plan is to give graduated doses up to 100 mg., then 100 mg. a week until the sedimentation rate falls to 10 mm. per hour, even if it is necessary to continue the treatment for from nine to twelve months.

Because of its dangers, the use of gold should be restricted to the cases of severe atrophic arthritis in which the patient does not respond to the usual treatment. If care is used in the selection of cases, and if the contraindications are observed, gold therapy represents a definite advance in the treatment of atrophic arthritis.

For many years it has been noted that pregnancy and jaundice both have a beneficial effect on the course of arthritis. Many cases have been reported in which a severe jaundice with icterus index up to 150 has been followed by a cure or remission of the arthritis. Hensch<sup>8</sup> of the Mayo Clinic gave large doses of bile and bile salts intravenously, but was able to raise the icterus index to only about 75 and was unable to affect the arthritis. Likewise, massive doses of progesterone have been given without benefit to the patient. These facts have little practical therapeutic significance, but it is extremely interesting that a disease of supposedly microbic origin should be altered by these chemical means.

#### 6. ORTHOPEDICS

The principal role of orthopedic surgery in the treatment of arthritis is in the correction of deformities due to ankylosis. Much can be done to restore function to damaged joints and limbs. Surgical orthopedic methods cannot be covered in this paper, but nonsurgical orthopedic methods should be mentioned. It is the duty of the physician to prevent ankylosis or, if he is unable to prevent it, at least to have the joint in the best functional position. This

means constant attention early in the disease to prevent contractures. Light removable splints are often necessary to permit the joint to be kept active as well as to reduce muscle spasms. Good posture and correct body mechanics should also be strived for.

#### 7. PHYSICAL THERAPY

This is undoubtedly the oldest form of treatment for arthritis and yet it still is important. Physical therapy comes under three general headings: heat, massage and manipulation, exercise and rest.

Heat is the first physical agent thought of in the treatment of an inflamed joint. It is useful in all its forms. In the home, the commonest method is the hot-water bottle, or the electric pad. Radiant heat is also helpful and can be easily obtained by a 100 watt bulb in an ordinary lamp placed about 8 inches from the joint. The hot paraffin pack is capable of bringing much heat to a joint without burning because of the slow rate of conduction of heat. The procedure is to melt about 5 pounds of paraffin in the top of a double-boiler, and then let it cool until a thin scum of cooling paraffin is beginning to form on the surface. This is then applied in about 8 layers over the affected joint and allowed to remain in place for one-half hour.

For arthritis of the hands, hot and cold contrast baths are especially helpful in inducing hyperemia. The hot water should be about 110 F. and the cold water about 60 F. The hands are immersed in the hot water for four minutes, then in the cold for one minute. This procedure is repeated for about twenty minutes, beginning and ending with the hot water.

In the office, diathermy is the most effective form of deep heating. It increases the circulation in the deeper tissues and often gives much relief from pain. Infra-red lamps also produce considerable local heat. Heliotherapy can be useful and we should be especially aware of its possibilities down here. In gradually increasing doses, hot sunshine is of material aid in improving general strength and stamina. However, it is contraindicated in febrile arthritis.

Massage is helpful in the late subacute, or chronic stage to prevent, or overcome, the muscle atrophy that is so often present.

The importance of rest has been mentioned. There should be no exercise if the joint is

acutely inflamed. Slow passive movement through the full range of motion is necessary to prevent ankylosis. After the acute stage has subsided, exercises should be started cautiously. These should not be done to the point of fatigue. Should a reaction to exercise follow, such as increased swelling or pain, less strenuous exercises should be done.

#### SUMMARY

Chronic arthritis is a crippling disease causing enormous suffering, disability and economic loss. The treatment is grouped under seven headings:

1. General Care of the Patient. The health level should be raised to the highest possible point. Attention should be paid to the metabolic rate, correction of anemia and care of the bowels.
2. Diet. The diet should be high in calories, high in vitamins, and adequate in respect to calcium, phosphorus, and iron. The concentrated carbohydrates and highly refined grains should be avoided, and emphasis placed on protective foods.
3. Management of Foci of Infection. Foci should be eradicated early and thoroughly. Conservatism in this field is becoming more popular.
4. Vaccines and Filtrates. Vaccines have a questionable place in treatment and seem to be losing favor. They should certainly not be overstressed.
5. Medication. Other than aspirin for pain, medicaments are of little specific help. Bee venom is of use principally as a method of counterirritation. Sulfur has no place in the treatment of arthritis. The case for or against high-dosage vitamin D is not proved. More investigation is necessary, but it is worthy of a trial in certain cases. Gold is too dangerous for use in the average case, but it is of unquestionable benefit. In severe or progressive cases, it probably is indicated.
6. Orthopedics. Other than surgical orthopedics, the principal factor is the prevention and correction of deformities by splintage, correct posture, and exercises.
7. Physical Therapy. Heat is the most useful physical agent and is helpful in all its forms. Massage and exercise should be used to strengthen atrophic tissues and increase the function of diseased joints.

The treatment of arthritis is a complex problem and for best results a well-rounded regimen must be followed combining all the methods of treatment.

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#### A SUMMARY OF TEN YEARS' PRACTICE IN OBSTETRICS

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This summary includes only my private hospital cases, as records of home deliveries are entirely inadequate and prenatal care in service and referred cases is out of my control. The statistical report covers some 500 cases coming under my care between 1930 and the spring of 1940. The study of these cases embraces parity, length and complications of pregnancy, complications of labor including delivery, lacerations, morbidity, mortality, and nursing record of the mother together with difficulties of resuscitation, injuries and anomalies, morbidity and mortality of the infants.

#### PARITY:

Para I	232 or 46.+	%
Para II	165 or 33.+	%
Para III	64 or 12.+	%
Para IV	24 or 4.+	%
Para V	12 or 2.+	%
Para VI	4 or .8+	%
Para VIII	1 or .2+	%
Para IX	2 or .4+	%

Read before the Fourth Annual Meeting of the North Central Medical District, Lake City, October 4, 1940.



## AGES:

Under 20.....	27
Between 20 and 25.....	146
Between 25 and 30.....	179
Between 30 and 35.....	97
Between 35 and 40.....	45
Between 40 and 45.....	6

Above 35 years there were:

Para I.....	10
Para II.....	11
Para III.....	12
Para IV.....	10
Para V.....	4
Para VIII.....	1
Para IX.....	1

## LENGTH OF PREGNANCY:

Four hundred and seventy-six mothers went to or through the ninth month of pregnancy. Nine went to one week and 2 to two weeks beyond the date of expectancy. There were 4 who went to six and one-half months, 1 to seven months, and 8 to seven and one-half months, according to the date of expectancy.

## WEIGHT GAINED:

The average gain was 22.7 pounds; the greatest gain was 44 pounds. The heaviest patient weighed 285 pounds at the first delivery and 293 at the second. She gained 10 pounds during each pregnancy. No difficulties were encountered during either delivery.

## HEMOGLOBIN ESTIMATION:

Practically the entire group was anemic. As has been reported by others, in the great majority of cases the anemia decreased rather rapidly during the last two weeks of full-term pregnancy. In 29 per cent of the cases the estimation dropped below 70 per cent (Sahli method) during the pregnancy and in 4 cases below 50 per cent. Transfusions, either one or more, were required in 3 cases. All anemic patients were given iron, and some were given liver also, especially when the erythrocyte count decreased.

## COMPLICATIONS OF LABOR:

## A. Nausea and Vomiting.

1. Slight to moderate in 196 cases.
2. Severe, requiring hospitalization, in 11 cases. With complete cooperation of both patient and family, I had to interrupt pregnancy only once for pernicious nausea; with-

out full cooperation, I had to do so in several instances.

## B. Edema.

1. Slight in 118 cases.
2. Moderate in 131 cases.
3. Severe in 16 cases.

## C. Albuminuria.

1. Trace in 123 cases.
2. 1 to 2 plus in 23 cases.
3. 3 plus or more and associated with other pathologic urinary findings in 6 cases.

## D. Blood Pressure Increase.

There were 47 cases in which the systolic pressure was above 136 mm. and the diastolic, above 90 mm.

E. Headache, with or without blind spots, in 57 cases.

F. Bleeding and threatened premature labor occurred in 21 cases, and there were 8 cases in which the patient, prior to being six months pregnant, had a bloody vaginal discharge without pain.

Symptoms noted under A, B, C, D, and E were, of course, associated symptoms. Attempts were made to control edema by a fluid balance; albuminuria and hypertension were treated by a relative low protein and low salt diet, fluid balance and bed rest.

## COMPLICATIONS DURING PREGNANCY BUT NOT NECESSARILY OF THE PREGNANCY:

1. Gonorrhea in 3 cases.
2. Leukorrhea with cause undetermined in 11 cases.
3. Trichomonas Vaginalis in 18 cases.
4. Yeast Vaginitis in 3 cases.
5. Bartholin gland abscesses or cysts in 3 cases.
6. Malaria in 10 cases.
7. Phlebitis occurring at four and one-half months in 1 case.
8. Appendicitis with operation in 3 cases.
9. Pellagra in 1 case.
10. Cervical polyps in 1 case.
11. Asthma, bronchial, in 2 cases.
12. Bronchiectasis in 2 cases.
13. Bronchitis, severe in 4 cases.
14. Mumps in 2 cases.
15. Pyelitis in 16 cases.
16. Varicose veins, severe, of legs and vulva in 3 cases.
17. Influenza in 2 cases.

18. Retroversion with fixation, requiring operation, in 1 case.
19. Myxofibrosarcoma in 1 case.
20. Glycosuria throughout pregnancy without increase of blood sugar in 1 case.
21. Lues in 3 cases.

Two of the 3 patients with lues had syphilitic children. One was seen only during the last two months of pregnancy and had intensive treatment. The other was a charity patient who would not report to the city clinic nor to my office for adequate treatment. The third had adequate treatment throughout pregnancy and gave birth to an apparently normal child even though the cerebrospinal fluid and the blood gave positive reactions. It is interesting to note that her first child has congenital syphilis, but she was delivered of 3 children whose spinal fluid and blood repeatedly gave a negative reaction to the Kahn test. Examination of her husband's blood also gave negative results. I did not have charge of this patient during the first pregnancy.

#### LABOR RECORD:

According to the report of examination on admission to the hospital, the following presentations were noted:

R. O. A.....	113
R. O. P.....	7
L. O. A.....	330
L. O. P.....	13
L. S. A.....	17
R. S. A.....	10
Transverse of abdomen.....	1
Transverse of pelvis.....	3
Face .....	1
Undetermined .....	5

Of the twenty posterior presentations, 3 rotated spontaneously, 4 were delivered occipitoposteriorly and 13 were rotated anteriorly, either manually or by forceps. One case of breech presentation was converted to cephalic presentation after the onset of labor, and 6 cases were converted prior to the onset. Twenty-six cases were delivered by breech.

There were 9 cesarean sections with the following indications:

1. One patient had had resection of a bicornate uterine horn.
2. One patient had two sections on account of chronic myocarditis and endo-

carditis, and in addition she had a small pelvis with a fixation of the coccyx in an anterior position.

3. Four patients had prior sections elsewhere.

4. One patient had a myxofibrosarcoma filling the left side of the pelvis.

5. One patient had a teratoma about 4 inches in diameter in the cul-de-sac.

In 372 of the remaining cases labor occurred spontaneously and in 119 was induced.

#### INDICATIONS FOR INDUCTION OF LABOR:

1. At term or beyond date of expectancy in 64 cases.
2. Increase of blood pressure in 20 cases.
3. Hypertension associated with albuminuria and edema in 17 cases.
4. Severe pelvic pain causing the patient to be bedridden one or more months in 4 cases.
5. Pellagra in 1 case.
6. Disproportion (size of pelvis in relation to fetus) in 9 cases. Roentgen studies were made in all these cases.
7. Size of mother in 1 case in which two pregnancies occurred, the weight being 285 and 293 pounds.
8. History of large babies at or beyond term, labor being induced at eight and one-half months in 1 case with two pregnancies occurring.

#### METHODS OF INDUCTION:

1. Voorhees' bag in 5 cases.
2. Catheter and vaginal pack in 2 cases.
3. Quinine and castor oil with or without minute doses (2 min.) of pituitrin in 63 cases.
4. Manual rupture of membranes in 49 cases.

#### ANALGESICS AND ANESTHETICS:

1. Sodium amytal, nembutal, occasionally morphine with hyoscine, paraldehyde, orally or rectally, and nitrous oxide with oxygen were the agents used.

#### COMPLICATIONS OF LABOR:

1. Prolapse of the cord in 1 case.
2. Marginal placenta praevia in 2 cases.
3. Shock in 3 cases.

4. Hemorrhages.
  - (a) More than normal in 9 cases.
  - (b) Moderately severe in 8 cases.
  - (c) Severe enough to warrant transfusion in 5 cases.
5. So-called retained placenta requiring manual delivery in 4 cases, including 1 case of placenta accreta.
6. Podalic version from the transverse position in 1 case.
7. Lacerations.
  - (a) 1st degree in 47 cases.
  - (b) 2nd degree in 64 cases.
  - (c) Episiotomy in 230 cases with additional lacerations in some.

Perineorrhaphy was done in 63 cases on account of old lacerations.

#### METHOD OF DELIVERY :

In 424 cases delivery was spontaneous. In one case podalic version was resorted to. Forceps were used in 66 cases as follows :

1. Low or prophylactic forceps in 47 cases.
2. Mid forceps in 6 cases.
3. Forceps on the after-coming head in 7 cases.
4. Rotation by forceps in 6 cases.

#### MORBIDITY :

Thirteen patients had an elevation of temperature ranging from 99 to 102 F. on the third and fourth days. It was thought to be due to engorgement of the breast, as the fever subsided with no therapy except the application of ice caps to the breast. There was 1 case of nonsuppurative mastitis occurring on the eighth day, which cleared up promptly with roentgen therapy.

Five patients had a temperature of from 99 to 100 F. throughout the period of hospitalization. The leukocyte count was elevated in some. Therapy was symptomatic. A diagnosis of low grade infection was made. In 27 cases there was an elevation of temperature varying from 99 to 104 F. and occurring from the third to the seventh day. Malarial parasites were found in the blood of all these patients, and they responded to treatment with quinine. Nine were in successive cases of pregnancy. In 3 cases the patient had a temperature higher than

normal. Malaria was suspected, but not found. Quinine was administered with prompt response. Were malarial parasites present, or did the quinine act as an oxytocic, causing a boggy uterus to contract? In 2 cases the patient's temperature ranged from 99 to 100 F. for eight days. No cause could be found. In these cases prophylactic forceps were used, one patient having had labor induced by manual rupture of the membranes. The fever was attributed to a low grade infection.

There were 2 cases of acute bronchitis and 1 of influenza in which the patient had some elevation of temperature. Postpartum pyelitis occurred four times and cystitis with catheterization twice. The wounds incident to episiotomy discharged purulent material in 3 cases. There was no outright breaking down of the perineum. Gangrenous hemorrhoids occurred once, and there was 1 case of acute gastroenteritis. Bartholin's gland was abscessed in 2 cases. In 3 cases phlebitis occurred after discharged from the hospital. Though there was a total of 67 cases of morbidity, in 34 of them the illness was not necessarily associated with pregnancy, but merely concurrent with it.

#### MORTALITY :

There was 1 death in the series, occurring in the case of a large patient weighing 168 pounds at the time of delivery. The pregnancy had been normal except for an occasional bloody vaginal discharge. The period of labor lasted fourteen hours, and delivery was spontaneous. There was no excessive hemorrhage. However, the patient went into shock postpartum, but recovered. Involution was slow. She had a bloody vaginal discharge for six weeks. On the forty-second day under aseptic precautions, an examination with the speculum was made, and a partially formed clot, which was adherent to the cervix, was removed with sponge forceps without manipulation. Three days later she had a chill. Death, caused by streptococcic septicemia, occurred six weeks after the clot was removed and prior to the advent of sulfanilamide.

#### NURSING RECORD :

One hundred and twenty-one mothers were able to nurse the infants at the time of their discharge from the hospital. Two hundred and



ninety-four were able to nurse only partially and 12 not at all. Fully two-thirds of those nursing partially at discharge were unable to nurse longer than six or eight weeks. The nursing record was much better in the earlier period covered by this report than in the later years. The cause of this change I have been unable to determine. I feel that the mothers try, and I know that I try, without success. As yet, I have not used the milk-producing hormone.

#### INFANTS:

There were 260 girls and 240 boys in the series. Twin births occurred four times with only one boy among the number. There were no homologous twins.

#### ANOMALIES NOTED:

Webbed fingers in 1 case.

Double thumb in 1 case.

Clubfoot, moderately severe, in 1 case.

Hydrocephalus with spina bifida in 2 cases.

Persistent thymus in 1 case.

The webbed fingers and double thumb were cared for later. The persistent thymus was treated successfully with roentgen rays. One infant with hydrocephalus died of meningitis at four months when the spina bifida ruptured. The other died during birth. The clubfoot was corrected by application of a plastic cast with frequent changes.

#### DIFFICULTIES OF RESUSCITATION:

There was considerable difficulty in resuscitation in 10 cases after apparently normal delivery, that is without prolonged labor and without the use of forceps. No cause could be determined in these cases unless it was the aspiration of mucus. In 1 case of difficult resuscitation, the cause was thought to be morphine, which was given two hours before delivery. In 2 cases the difficulty was considered due to the trauma of labor: one mother, a unipara aged 37 years, was in labor for eleven and three-quarter hours, and the other experienced a persistent R. O. P. labor of six hours duration with spontaneous delivery. In only 2 cases in which prophylactic forceps were used, was there difficulty in resuscitation, due to aspiration of mucus rather than trauma from forceps. There was 1 case in which intracranial hemorrhage occurred. It followed after

the labor of a unipara, aged 23 years, was prolonged for twenty-six hours and mid forceps were used. There was considerable difficulty in resuscitating the infant, and she had convulsions for four days with apparent complete recovery.

#### DEATHS:

There were 21 deaths. Four occurred in fetuses of six and one-half months with simple prematurity as the cause except in 1 case of strangulation of the cord. One case of melena neonatorum, with onset twelve hours after delivery, terminated fatally within twelve hours in spite of transfusions at a time before vitamin K was available. One cyanosed baby died suddenly eight hours after birth; the cause of death was undetermined. One baby was stillborn at term, death being due to strangulation of the cord. Three infants were stillborn, death having occurred some time before the onset of labor; the cause was undetermined. Two deaths occurred during delivery on account of strangulation of the cord, which was about the neck and feet. One died during a delivery in which mid forceps were used. Although hydrocephalus was not present in this case, there was disproportion between the baby's large head and the mother's pelvis. One baby weighing  $9\frac{1}{4}$  pounds died during delivery; the cord was about the neck and compressed. It took twenty minutes to deliver the shoulders after the head. Of 2 infants with hydrocephalus, one died during delivery and one at four months with meningitis.

In 1 case of hydramnios with bag induction and rotation by forceps from R. O. P. to R. O. A., in which the mother was a tripara, the infant died of intracranial hemorrhage. Another died from atelectasis after twenty-five hours. One seven and one-half months baby died after seventy-two hours with the cause of death undetermined except for prematurity. In this case the weight of the infant was 4 pounds and the period of labor thirteen hours. One infant died after eight hours, probably due to atelectasis. This delivery was by section in a case of lymphosarcoma. In 1 case compressing the cord with instruments was the cause of death. This was a case of transverse presentation with rotation by forceps to the anterior position and delivery, in which the fetal heart was not

sufficiently checked after application of the forceps.

#### COMPLICATIONS IN INFANTS:

I am sorry that I cannot give accurate figures on jaundice, of which records were noted in 25 cases, showing it lasted from three to ten days. I think surely there were more cases in which it occurred. Impetigo occurred in 10 cases. In 6 cases rather serious vomiting was controlled with atropine, though 3 of the infants showed toxic effects such as elevation of temperature. There was recovery in 1 case of melena neonatorum in which intramuscular blood was used. I have not used vitamin K nor the synthetic vitamin K.

The wound incident to circumcision bled excessively in 1 case, but the baby recovered. One infant, cyanosed for twenty-four hours from undetermined cause, recovered after the administration of carbon dioxide and oxygen; and a second, probably atelectatic, after breathing with difficulty for twenty-four hours, recovered following the application of heat and the administration of carbon dioxide and oxygen. Intramuscular blood was used in both cases. In 1 case of intracranial hemorrhage the infant had convulsions for four days. Recovery was complete with the treatment consisting of the application of heat, no handling and the use of intramuscular blood. A second baby, delivered after a short labor of six hours, recovered from paralysis of the right side after four days. It was undetermined whether this infant had an intracranial hemorrhage or not. Two infants had to have caput succedaneums aspirated. There were 2 cases in which congenital lues was manifested both clinically and by positive reaction of the spinal fluid to the Kahn test. The mothers had had insufficient antepartum treatment.

#### SUMMARY:

Nothing new has been presented in this report. I have simply tried to cover my experiences over the past ten years. Several facts have impressed me. During pregnancy fluid balance is of extreme importance. Roentgen examination of the pelvis at eight or eight and one-half months should be made in all questionable cases. No extra hazard was incurred and no lengthening of labor caused by induction of labor when indicated. In premature labor,

every effort should be made to prevent trauma during delivery. It is absolutely necessary that the Kahn test be made in all cases and, unless one is reasonably sure, repeated once or twice during pregnancy. The importance of this measure was brought home to me by none of the cases reported, but by one case in which a congenitally syphilitic baby was born whose mother had contracted her infection after the Kahn or Wassermann test gave negative results at the time of the original examination. Analgesics should be used in practically all deliveries. From reports in the literature, the prophylactic use of vitamin K, or the synthetic product, is worth while. I have found a definite association of placental infarcts with toxic conditions in obstetric cases, as has been reported a number of times during the last two years.

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### HEMATURIA AS A RESULT OF SULFANILAMIDE THERAPY

Report of Two Cases

Nathan Weil, Jr., M. D.

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Since the advent of sulfanilamide as a therapeutic agent, much has been written concerning the toxicity of this drug. The literature on this subject clearly describes the usual toxic manifestations, namely, cyanosis, anorexia, nausea, anemia, agranulocytosis, dermatitis and even psychic upsets. In addition, numerous articles have been written concerning the occurrence of hemoglobinuria and methemoglobinuria during the period of its administration. In recent weeks several inquiries have been noted as to the possible role of sulfanilamide in producing hematuria. In the majority of such instances it is quite impossible to determine whether the hematuria is due to the actual use of the drug or to the infection being treated.

Recently, the author observed two cases in which hematuria occurred following the administration of sulfanilamide. In one an extremely small total dose was administered and in the other a relatively large amount was given. In both cases the response to the discontinuation of the drug was remarkable.

# REPORT OF CASES

Case 1. W. K., a boy aged 14 months, was admitted to the hospital on the pediatric service, March 7, 1940, the complaint being frank hematuria of three days' duration. Ten days previously a common cold and bilateral otitis media had developed with the onset marked by elevation of temperature up to 103 F., moderate coryza and slight cough. For four days the child had been treated at home by his mother with a simple cough mixture and small doses of aspirin several times daily, but without improvement. During the next three days under the direction of a physician he had received 1.65 Gm. of sulfanilamide and on the third evening following the initial dose had begun to pass dark urine. The following morning definite hematuria had become apparent, and the sulfanilamide had then been discontinued. During the next thirty six hours the hematuria had become more pronounced, and at the time of the patient's admission to the hospital the urine appeared to be entirely blood. At no time had there been nausea, emesis or cyanosis. On the morning of admission the mother had observed for the first time an icteric tint of the skin and sclera.

Physical examination revealed an acutely ill male of the stated age. Dehydration was moderate, and the child was extremely listless. The skin was lemon yellow in color, and the sclera was definitely icteric. The only other finding of note was the fact that the liver extended 3 cm

below the costal margin on the right side but was not tender.

## LABORATORY DATA

### Throat Cultures

3-9-40 Gram negative bacilli (probably Friedlander's)  
Alpha hemolytic streptococci  
3-12-40 No Growth  
3-16-40 No Growth

### Blood Chemistry

Nonprotein nitrogen 3-8-40 47 mgm. %  
3-13-40 28 mgm. %  
Cholesterol 3-8-40 108 mgm. %

### Sulfanilamide Concentration

3-7-40 2.3 mgm. %  
3-13-40 Trace too small to estimate  
3-7-40 Carbon dioxide combining power 54 volumes per cent

Blood cultures No growth at 96 and 120 hours

3-18-40 Addis count (urine)

48 cc. total volume

Sp. gr. 1.028

Reaction Acid

Albumin none

R. B. C. Less than 10,000

W. B. C. 220,000

Casts 1,000 (granular)

## Urinalyses

Date	Reaction	Sp. Gr.	Albumin	Sugar	Microscopic
3-7-40	alkaline	qns	4--	none	R. B. C. and granular casts too numerous to count
3-8-40	alkaline	qns	4--	none	R. B. C. and granular casts too numerous to count
3-9-40	alkaline	qns	2--	none	Numerous R. B. C. and granular casts
3-10-40	neutral	qns	none	none	3 to 5 R. B. C. per HPF; occasional granular casts
3-12-40	acid	qns	none	none	Rare R. B. C.
3-14-40	acid	qns	none	none	Negative
3-16-40	acid	qns	none	none	Negative
3-19-40	acid	qns	none	none	Negative

## Hematology

Date	Hemoglobin (Haden-Hausser) Gm.	R. B. C.	W. B. C.	Polys.	Lympho.	Mono.	Eos
3-7-40	4.4	3.21	47,000	24	58	16	2
3-10-40	8	3.69	43,000	52	43	5	
3-12-40	10.5	4.16	29,000	64	24	8	4
3-16-40	13	5.27	16,000	66	23	10	1

Case 2. A. D., a boy 8 years of age, was admitted to the hospital on the neuropediatric service, April 3, 1940, with a history of otitis media two weeks previously. This condition had apparently been cured by myringotomy, but for the week prior to admission he had become increasingly stuporous and had complained of headaches; in addition, he had had a temperature of 101 F. and a stiff neck. A diagnosis of cerebellar abscess, made by the referring physician, was confirmed on admission.

The patient was operated on shortly after entering the hospital, and a large cerebellar abscess was drained. Immediately following the operation the boy was given 2.5 Gm. of sulfanilamide daily for the next ten days. He then began to complain of pain in the lower part of the abdomen, but examination failed to disclose any apparent pathology. Urinalysis, however, now revealed for the first time many red blood cells and the following day gross hematuria was present without other unusual physical findings.

## LABORATORY DATA

### Blood Chemistry

### Sulfanilamide Concentration

4-4-40 10.4 mgm. %  
4-6-40 6.5 mgm. %  
4-8-40 8.0 mgm. %  
4-10-40 9.6 mgm. %  
4-12-40 9.9 mgm. %  
4-14-40 10.8 mgm. %  
4-16-40 8.0 mgm. %  
4-22-40 4.0 mgm. %  
4-25-40 Trace too small to estimate

### Nonprotein Nitrogen

4-22-40 38 mgm. %  
4-25-40 24 mgm. %

Culture from cerebellar abscess Streptococcus hemolyticus



## Urinalyses

Date	Reaction	Sp. gr.	Albumin	Sugar	Microscopic
4-3-40	acid	1.033	none	none	Negative
4-9-40	acid	1.026	none	none	Negative
4-17-40	acid	qns	none	none	Negative
4-21-40	acid	1.020	none	none	2 to 3 R. B. C. per HPF
4-22-40	alkaline	1.016	3+	none	R. B. C. too numerous to count
4-23-40	alkaline	1.022	1+	none	8 to 10 R. B. C. per HPF
4-24-40	acid	1.020	none	none	Negative
4-25-40	acid	1.016	none	none	Negative
4-26-40	acid	1.016	none	none	Negative

## Hematology

Date	Hemoglobin (Haden-Hausser) Gm.	R. B. C.	W. B. C.	Polys.	Lymph.	Mono.	Baso.	Eos.
4-3-40	10	4.53	16,600	82	9	1	4	4
4-5-40	9.5	3.66	16,650	78	18	2	1	1
4-7-40	9.5	3.3	15,000	75	23	0	2	0
4-9-40	10	4.00	12,000	75	20	2	1	2
4-12-40	9	4.13	11,750	70	23	4	3	0
4-15-40	9	4.01	7,550	73	27	0	0	0
4-18-40	10	3.95	6,000	67	30	1	2	0
4-22-40	10	4.13	13,500	70	23	5	1	1
4-25-40	12	4.03	10,000	65	30	3	2	0

## TREATMENT

The treatment of both of these cases was essentially the same, and the results were most gratifying. When the hematuria was manifest, the sulfanilamide was immediately discontinued. To assure ample intake, fluids were given both orally and parenterally. Normal saline was administered subcutaneously. The patients were given sodium bicarbonate by mouth in 0.3 Gm. doses four times daily on the supposition that this treatment would allay the agglutination of red blood cells in the renal glomeruli. Repeated small transfusions of citrated whole blood were given every other day with a pronounced elevation of the red cell count and increase of hemoglobin resulting.

The response in both instances was rapid and remarkable; both patients ceased to pass red blood cells within three days and were afebrile for the duration of the convalescent period. In case 1 the jaundice disappeared within forty-eight hours, and at the time of the patient's discharge the liver was barely palpable below the costal margin.

The patients were seen several times after their discharge, and both made excellent progress. Repeated examinations of specimens of urine failed to reveal any trace of blood either macroscopically or microscopically. The blood pictures remained approximately within normal range up to the time of writing.

## COMMENT

In considering these cases in detail several possibilities as to the cause of the hematuria are evident; they include acute hemorrhagic nephritis, acute hemolytic anemia and hematuria from chemotherapy, specifically sulfanilamide. A likely diagnosis would be that of acute hemorrhagic nephritis, but the prompt response to treatment and the persistently negative urinary findings in such a short period are against this possibility. Further, in case 1

especially, no foci of infection were present, and in neither case was there sustained fever.

Acute hemolytic anemia could readily produce the clinical picture seen in these cases except for the large number of red blood cells found in the urine. In a personal communication from Dr. Perrin H. Long, this possibility was strongly suggested in case 1, but was felt to be indefinite in the light of the urinary findings.

The prompt response to blood transfusions and to the discontinuation of sulfanilamide seems to place this syndrome in the category of hematuria due to the administration of sulfanilamide and idiosyncrasy to this drug. That sulfanilamide may be capable of producing renal irritation and thereby causing hematuria must be kept in mind, although at present there is little concrete evidence to substantiate this possibility. It nevertheless is apparent that frequent urinalyses are important in any case in which the patient is receiving sulfanilamide therapy.

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## EXCRETORY FUNCTION OF THE SMALL INTESTINE IN RENAL INSUFFICIENCY

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Attention is directed to the clinical manifestation of the excretory function of the duodenum, especially as a compensatory measure in the presence of renal insufficiency. We know that the endothelium of the blood vessels constitutes a great organ extending everywhere in the body, and it is believed that it has important functions other than being a tube for the conduction of the blood. Is it concerned also in the elaboration of the constituents of the blood protein and plasma? We do not understand completely the blood proteins, nor the functions of the capillary endothelium. One thing, however, is clear, namely, that these capillary cells play an important part in the control of the formation of lymph, to which process they stand somewhat in the same relation as do the glomerular cells of the kidneys to the formation of urine.

It is believed that the following case illustrates this phenomenon.

### REPORT OF CASE

A white man aged 36, who walked into the hospital, complained that five days previously he had noticed for the first time that, in the early morning, his urine was very dark, "coffee-like" in color. This condition had continued through that day, with frequent urination, always small in amount; and from that time he had been unable to void urine.

Read before the Pinellas County Medical Society, July 19, 1940.

He was married, with a wife and two children living and well. He had been an automobile and insurance salesman, but, because of poor health, had worked very little for the past four years. He was at the time employed by the Works Progress Administration and was working on a construction project the first day of his illness.

He had been in the Army during the World War for twenty-nine months, having enlisted at the age of 18. While overseas a rash diagnosed as syphilis had developed, and he had been given four or five injections of neoarsphenamine. He had received no further treatment until 1927, at which time he was hospitalized for the treatment of a sore on his lower lip, which had resisted treatment for four months. His blood Wassermann reaction at that time was four plus, and two courses of antiluetic treatment were administered. The ulceration of his mouth healed readily under this therapy, but it left a distinct cicatrix.

In 1932 he was again hospitalized for the treatment of an ulcer on his left leg and one on his right heel, which had existed for one month; and for a week he had suffered extensive swelling of his feet and ankles. At that time his blood pressure was 170 systolic and 100 diastolic; his blood Wassermann reaction was negative on three examinations; and his urine, in six analyses, was positive for albumin, red blood cells and hyaline and granular casts. When he was discharged from the hospital after further antiluetic treatment, the ulcerations and swelling of his feet and legs had disappeared, the blood pressure had come down to 120 systolic and 80 diastolic, and he had become symptom-free except for a trace of albumin in the urine.

He was next hospitalized Dec. 12, 1935, complaining of severe swelling of his feet and legs, from which he had suffered this time for a period of two months; in the two weeks prior to this admission the swelling had grown progressively worse and had advanced to the thighs and scrotum. He complained also of shortness of breath, palpitation of the heart, dizziness and spots before the eyes, but of no headaches nor urinary disturbance. Examination revealed a general anasarca of the lower extremities, including the scrotal area, and edema of the hands and wrists. The blood pressure was 226 systolic and 142 diastolic, the pulse rate was 100, erythrocytes numbered 3,000,000, and the hemoglobin estimation was 73 per cent. The blood Wassermann reaction was negative. The urine, on repeated analyses, was positive for albumin and hyaline and granular casts. The cardiac index was 48 per cent, and an electrocardiogram showed no abnormality. After treatment for nephritis and myocardial insufficiency he was discharged from the hospital free from edema. His blood pressure at that time was 162 systolic and 104 diastolic, his weight was 146 pounds, and he appeared to be in a fair state of health.

When the patient was again readmitted to the hospital, seventy days later, his only complaint was inability to void urine. On examination he was pasty in color, anemic in appearance and weighed 163, having gained 17 pounds since his discharge ten weeks previously. The pulse rate was 84, and the temperature was normal. The blood pressure was 198 systolic and 120 diastolic, the heart was apparently well compensated, and there was no edema. He was put to bed, and a careful check was made of the intake and output of fluids. Fluids, forced by mouth, were taken and retained well, but their administration was followed always, within approximately thirty minutes, by frequent and copious watery stools. The medication consisted of a 5 to 25 per cent solution of glucose in saline, given intravenously, together with insulin, caffeine and sodium benzoate, 5 grains subcutaneously, and magnesium sulphate solution intravenously. Each of these remedies seemed to produce the same reaction of watery stools, but they failed to stimulate any urinary secretion.

The eye grounds showed a bilateral constriction of the arteries, but not enough to justify a diagnosis of retinal arteriosclerosis. The patient was catheterized several times, but no urine was found in the bladder. The blood Wassermann reaction was negative. Erythrocytes numbered

3,200,000, and the hemoglobin estimation was 70 per cent; the blood nonprotein nitrogen level was 162 mg., urea nitrogen 68 mg. and creatinine 10.7 mg. per hundred cubic centimeters. Roentgen examination of the kidneys and ureters revealed them to be of normal size, shape and location, and there was no suggestion of a calculus in either the kidneys or ureters. There was no obstruction to the passage of ureteral catheters, and no urine was found in the pelvis. There was no function of the kidneys during one hour's observation by an intravenous pyelogram, nor was any opaque medium observed within either ureter or within the bladder. Sterile water injected into the pelves showed them to be normal in size.

Nine days after the onset of anuria, the patient seemed perfectly conscious. He complained of no discomfort, requested permission to leave his bed for exercise and required no sedatives for rest until the twelfth day. He then became restless, was nauseated after taking fluids and vomited about twice in twenty-four hours. He died on the fourteenth day from what appeared to be cardiac failure with pulmonary edema. He was conscious until death, and there was no detectable odor of uremia.

Postmortem examination showed the mucosa of the stomach and small intestine greatly thickened, especially in the duodenum and beginning portion of the jejunum. At the terminal portion of the jejunum and in the ileum there was watery-like mucus. No ulceration was present, but there was evidence of petechial hemorrhage into the mucosa of the stomach. The cecum and colon showed no injection nor ulceration, and the mucosa of the large colon was pale, but quite moist.

The right kidney was enlarged, measuring 11.5 by 5.0 by 4.0 cm.; the capsule stripped readily. The cortex was slightly irregular with prominence of the vessels and contained cysts up to 1.5 cm. in size; the ureter and renal pelvis were not dilated. On section, the parenchyma was light gray to tan in color, firm and showing shiny, pinpoint, reddish areas; the medulla showed areas of injection. The left kidney was essentially similar, measuring 12.0 by 4.0 by 4.5 cm.; its cortex was not reduced. Each kidney weighed 200 Gm.

Microscopic examination of the kidneys revealed an increase in the interstitial tissue. The arterioles showed an endarteritis with endothelial proliferation; some of

the tufts showed an atrophy; there was hyaline thickening of the walls of the vasa afferentia. There was marked hyperplasia of the glomerular endothelium, which often filled the capsular space and was adherent to the capsule. The capsular epithelial membrane was thickened and formed an increased connective tissue-like ring around the capsule. The majority of the capsules were unusually large; there were some hyaline changes of degeneration in the tufts; the tubular epithelium seemed flatter than normal; there were cast formations in some of the tubules; and some areas showed prominence of the vascular apparatus. The large arteries gave no evidence of alterations in the intima.

From the findings at autopsy, the primary cause of death was determined as chronic nephrosclerosis (degenerative, malignant, hypertensive type) of four years' duration, with acute pulmonary edema and congestion of two days' duration as the contributing cause.

Might it not be that the compensatory function of the capillary endothelium of the intestinal tract, in the presence of renal insufficiency, is to excrete from the blood those products which are normally excreted by the kidneys? Such a process is indicated in this case by the absence of uremic odor, which must have been due to the abundance of fluids taken and excreted through the intestines, in many instances by vomiting. The presence of life after the patient had suffered from anuria for fourteen days, and the marked hyperplasia of the capillary endothelium of the intestinal mucosa, especially in the duodenum, seem significant in the light of this hypothesis.

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Committees—Continued on page 568

## Committees — Continued

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## ANNUAL CONVENTION— JACKSONVILLE

The Duval County Medical Society entertained royally the doctors and guests who attended the Sixty-Eighth Annual Convention of the Association. The attendance was well over 800 but did not reach the grand total registered at the Tampa meeting last year. There were, however, more members and doctor guests registered than at the Tampa meeting. Next month's Journal (June) will

contain a complete writeup of the annual convention, proceedings of the House of Delegates, annual reports of officers and committee chairmen, and Echoes of the Convention.

In this Journal may be found the names of the newly elected officers, President Jones' new assignments to the Association's standing committees, and the editorial staff.

## FLORIDA IN VANGUARD OF PROGRESS IN GRADUATE MEDICAL EDUCATION

Among the notable achievements of the medical profession in the past few years has been the progress made in graduate education. Only a comparatively short time ago, except for the European medical centers, the only graduate education to be secured in a reasonable period of time was offered by a few of the medical schools in the larger cities. Most of these were on a profit basis. The total expense was usually prohibitive for the general practitioner, unless he was in the large income bracket. Those who saw the necessity for graduate education for the physician in a lower income bracket or for the one located in a country district where his absence would seriously discommode the population, realized that this training must be brought as close to his door as possible.

The Federal government sponsored such education and attempted to send teachers into the smaller communities. This project was not wholly a success. At the same time, more medical schools were attempting to offer graduate work to those who could afford it (both financially and from the standpoint of time). Not until approximately ten years ago did the various state societies begin to sponsor graduate education for their members. Nine years ago the Florida Medical Association offered to the doctors of medicine in this state its first medical short course. In doing so we were pioneers. Each year has seen definite improvement in the courses offered. The course today stresses the fundamentals of the practice of medicine rather than attempts to offer instruction in the fields of the specialists. It has been evident from the attendance that interest in the course has increased and that its value to the profession in Florida is fully appreciated.

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JACKSONVILLE, FLORIDA

JUNE 23-28, 1941

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SURGERY

Dr. Richard B. Cattell, Lahey Clinic, Boston.

OBSTETRICS

Dr. Nicholson J. Eastman, Professor of Obstetrics, Johns Hopkins University School of Medicine, Baltimore.

PEDIATRICS

Dr. Daniel C. Darrow, Associate Professor Pediatrics, Yale University School of Medicine, New Haven.

GYNECOLOGY

Dr. E. D. Plass, Professor of Obstetrics and Gynecology, State University of Iowa College of Medicine, Iowa City.

VENEREAL DISEASES

Name of Instructor will appear on printed program

MILITARY MEDICINE

Instructor to be supplied by Medical Officer in charge of the Fourth Corps Area.

Printed programs giving complete data of this Medical Postgraduate Course, which will be held June 23-28, at the George Washington Hotel, Jacksonville, will be mailed to all members of the Association the early part of June. For additional information, communicate with Dr. T. Z. Cason, Chairman, 2033 Riverside Avenue, Jacksonville.

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GROWING NEED FOR NEUROLOGIC  
TRAINING

It is heartening to know that an enormous percentage of the criticisms and accusations leveled at the medical profession today arise out of the ignorance or prejudice of its critics, by reason of commercial interests at variance with medical ideals and, sometimes no doubt, because of political expediency. They invite the silent contempt they deserve. Some criticism, however, may be both deserved and constructive.

A vulnerable point is suggested by the many articles appearing recently about the increasing number of patients suffering from nervous conditions. There seems little doubt that fear, anxiety and apprehension, prevalent in the very air today, actually increase the number, the variety and the intensity of nervous lesions. Consequently, the problem of how to care for these patients looms large upon the medical horizon.

The present war is everywhere called a war of nerves. Already, far more than during the corresponding stage of the last World War,

thoughts are turning to the eventual peace with a view to avoiding the tremendous toll and the disastrous times of that postwar period. Preparedness is the order of the day. Shall the physician, absorbed in the stress of the present emergency, be lacking in preparation for the emergency of tomorrow with its sinister potentialities?

The estimates of the percentage of patients in whom the neurologic factor plays a major or a minor part in disease vary from 45 to 85 per cent with 65 per cent doubtless representing a fair average. Yet, there are probably no more than ten neurologists and psychiatrists in the state of Florida, obviously a disproportionate number.

Only one among the last three groups of interns completing the term of service in a large municipal hospital planned ultimately to specialize in neurology. The average physician reflects this tendency in his practice. He attempts minor surgery, handles a difficult obstetric case and even treats diseases of the skin without a qualm, but seldom does he with like equanimity lend a sympathetic ear to the story of nervousness, phobias, fixed ideas or tension. Usually he dodges, avoids or fights shy, inwardly if not outwardly, of patients with such a story, not because he is unwilling to deal with such cases, but simply because he is unprepared.

Yet many of these patients can to advantage be treated by the general practitioner who is trained to care for them. Certainly the patient whose case is one of deep involvement or of long standing requires the attention of the neurologist or the psychiatrist just as the patient with appendicitis requires the services of the surgeon. Too frequently, however, the average physician considers these specialists qualified to care for insane patients only. The average patient likewise has this idea, and in too few instances is this erroneous impression corrected. As a result, the available specialists, although inadequate in number for the demands that should be made upon them, are not used to the fullest extent.

Let us, therefore, adopt as a timely policy a program to encourage the established practitioner in efforts to increase his knowledge of neurologic diagnosis and therapy. Let us also direct the undergraduate, the intern and the general practitioner contemplating specializa-



tion to this vast unfilled branch of medicine so that they may grasp the opportunity that awaits, not solely for themselves, but also in the interest of the national good and as a measure of preparedness.

The *Journal* welcomes articles by neurologists and psychiatrists designed to be of practical value to physicians who are not specialists in nervous and mental diseases.

### LICENSE STOLEN

Dr. V. M. Johnson of West Palm Beach has reported the theft of his Florida State Medical License, issued by the Board of Medical Examiners July 10, 1921, No. 1157. This license was taken from the Good Samaritan Hospital some time between the 8th and 15th of April.

### THE U. S. GOVERNMENT VERSUS A. M. A.— NEXT STEP

"On May 2 attorneys for the American Medical Association are scheduled to submit to the [Washington, D. C.] District Court three motions together with argument," *The Journal* of the Association for May 3 announces. "The motions are: 1. A motion to set aside the verdict of guilty and to enter judgment in favor of the two corporate defendants. 2. A motion in arrest of judgment. 3. A motion for a new trial. No doubt the court will take these motions under advisement with a view to handing down the decision at a later date."

### IRREGULARS CONVICTED

C. C. Driver of Borgia, Escambia County, who had been giving medical treatment for 30 years, pleaded guilty on two counts March 22 on the charge of practicing medicine without a license. The conviction followed investigation and prosecution by the Bureau of Narcotics, State Board of Health, M. H. Doss, director.

Judge Pope Reese of the Criminal Court of Records fined the defendant \$50 on each of the two counts, plus court costs. Judge L. L. Fabinski issued a restraining order February 22 enjoining Mr. Driver from the practice of medicine. Mr. Driver had prescribed drugs but he was not registered with the Bureau of Narcotics as a medical doctor and had no license to practice medicine.

Other persons convicted this year of violating the Narcotic law are A. M. Johnson, John J. Kirby, Clyde Cole Yeagan, George F. Howell, Arthur Norman Belanger, Harry C. Logan, all white, and George Jones, colored.

*Reprinted from Florida Health Notes 33: 73 (May), 1941.*

## MARRIAGES AND DEATHS

### MARRIAGES

Dr. James L. Borland and Miss Margaret deBelle Gaillard of Jacksonville were married May 1.

### DEATHS

Dr. Arthur W. Knox of Sanford died May 1.

Dr. William E. Foy of Ft. Pierce died on April 16.

## STATE NEWS ITEMS

Florida doctors who attended the meeting of Region II of the American Academy of Pediatrics in Richmond, April 24 and 25, were: Drs. W. W. McKibben, Miami; Douglas D. Martin, Tampa; Gilbert S. Osincup, Orlando; Warren W. Quillian, Coral Gables; and Alvyn W. White, Pensacola.

\* \* \*

Dr. W. G. Miles of Chattahoochee attended the Third Psychiatric Institute held in Columbia, S. C., from April 14 through April 26.

\* \* \*

The American Medical Golfing Association's Twenty-Seventh Annual Tournament will be held at Cleveland Country Club-Pepper Pike Club, Cleveland, Ohio, Monday, June 2, 1941. Two famous championship courses and a beautiful clubhouse await the nation's medical golfers in Cleveland on the occasion of the A. M. A. Convention.

Some 250 of the 1,413 Fellows of the A. M. G. A. are expected to take part in this 36-hole competition. Each contestant will play both courses. The hours for teeing off are from 7:30 a. m. to 2:00 p. m. The sixty prizes in the nine Events will be distributed after the banquet at the Cleveland Country Clubhouse at 7:00 p. m.

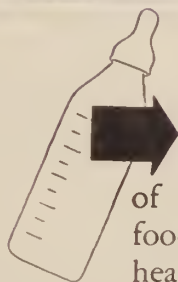
All members of the A. M. A. are eligible for Fellowship in the A. M. G. A. Write Bill Burns, Secretary, 2020 Olds Tower, Lansing, Michigan, for registration application.

\* \* \*

Dr. R. D. Thompson of Orlando has recently attended a number of meetings in an endeavor to extend the facilities for tuberculous patients in this State. At Raiford he consulted with Dr. Kelly and Supt. Chapman relative to building a tuberculosis unit for the prisoners. At Palm Beach he met with the officials of the County Tuberculosis Association regarding the construction of a tuberculosis unit for white patients.



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The next examination of the State Board of Examiners in the Basic Sciences will be held Saturday, June 7, at the John B. Stetson University, DeLand. All applications for this examination must be mailed at least fifteen days prior to the date of the examination to Professor J. F. Conn, Secretary, at John B. Stetson University, DeLand.

### COMPONENT COUNTY SOCIETIES

#### DE SOTO-HARDEE-HIGHLANDS-CHARLOTTE- GLADES

Officers for the DeSoto-Hardee-Highlands-Charlotte-Glades County Medical Society for the current year are as follows: president, A. T. Eide, Lake Placid; vice-president, C. H. Kirkpatrick, Arcadia; and secretary-treasurer, H. V. Weems, Sebring.

\* \* \*

#### JACKSON

The Jackson County Medical Society is on the Honor Roll of 100% paid societies. Officers of this society are: M. Q. Burns, Blountstown, president; D. A. McKinnon, Marianna, vice-president; and R. N. Joyner, Marianna, secretary-treasurer.

\* \* \*

#### LEON-GADSDEN-LIBERTY-WAKULLA-JEFFERSON

The quarterly meeting of the Leon-Gadsden-Liberty-Wakulla-Jefferson County Medical Society was held at the Sewano Country Club, Quincy, on Thursday afternoon, April 17. The following program was presented:

"Dilantin Therapy in Epilepsy"—Fred Butler, Chattahoochee.

"Impetigo Contagiosa Complicated by Hemorrhagic Nephritis"—Henry E. Palmer, Tallahassee.

"The Moral History of Woman"—Sarah Parker White, Tallahassee.

Following the scientific session a barbecued dinner was served.

\* \* \*

#### MADISON-SUWANEE

The Madison-Suwannee County Medical Society stands 100% paid for 1941. Officers of this society for the current year are: president, J. M. Price, Live Oak; vice-president, Eugene D. Thorpe, Madison; and secretary-treasurer, Irby H. Black, Live Oak.

\* \* \*

#### PASCO-HERNANDO-CITRUS

Dr. and Mrs. H. Durham Young enter-

tained the Pasco-Hernando-Citrus County Medical Society at their hospital in Bushnell, Thursday evening, April 10. A delightful dinner was served by Mrs. Young, after which a scientific meeting was held in the reception room of the hospital.

Dr. W. H. Walters, chairman of the Society's Medical Preparedness Committee, reported on the work of his committee. Drs. S. C. Harvard of Brooksville and H. Durham Young of Bushnell presented clinical case reports which were discussed by all present. Dr. William B. Moon of Crystal River invited the society to meet with him on May 8 for a boat trip on the Gulf.

Present at this meeting were Drs. Bradshaw, Creekmore, Hudson, Harvard, Jones, Moon, Walters and Young. Dr. W. B. Moon, president, presided.

\* \* \*

#### PINELLAS

The Pinellas County Medical Society met at the Shrine Club, May 2, at 6 p. m.; Dr. A. S. Anderson presided. Dr. R. K. O'Brien, as Dr. R. K. O'Quiz, propounded questions to which he alone knew the answers and returned 25 silver dollars to his bag. Dr. Anderson expressed fond farewells to departing members who had been called into military service.

Dr. M. A. Nickle took the Chair and introduced Dr. A. R. Frederick, who gave a case report on "Pelvic Abscess." Dr. A. J. Bieker was absent and his report was deferred. Dr. L. A. Wylie spoke on "Preoperative and Postoperative Treatment with Pitressin." Dr. R. D. Murphy asked to postpone his talk to a later date in order to give more time for the guest speaker. Brig. Gen. Howard L. Laubach then spoke on "Army Rations."

Resolutions on the death of Dr. Jesse A. Strickland were read and adopted. Dr. L. B. Dickerson was made an honorary member effective 1942. Dr. Vernon LeRoy Hagan was made an active member.

\* \* \*

#### POLK

Dr. Henry A. Chroder of New York City, a member of the Rockefeller Foundation for Medical Research, spoke to the members of the Polk County Medical Society at a meeting held at Lakeland on April 9. His subject was "Hypertension." Dr. Chroder was the guest of Dr. B. R. Tinkler of Lake Wales, president of the society.





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1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," *Am. J. Syph., Gon. & Ven. Dis.*, 23, 201 (March), 1939.

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## ABSTRACT DEPARTMENT

*Members of the Florida Medical Association who have had articles published in out-of-state medical journals are requested to forward such journals or reprints to Box 1018, Jacksonville, for abstracting in this department.*

**Terminal Cardiac Mechanism in Coronary Artery Disease, GOODRICH, BEN E., Detroit, and NEEDLES, ROBERT J., St. Petersburg, Am. Heart J. 20:637-640 (Nov.) 1940.**

To those interested in the study of electrocardiographic changes occurring in the heart at various stages of coronary disease, this is a very interesting and valuable report with cardiograms reproduced, showing the electrical activity of the cardiac musculature just before and after death. Death in two cases reported was caused by cardiac standstill after ventricular tachycardia and by ventricular fibrillation preceding the termination of cardiac activity.

**Electrosurgery of the Brain and Spinal Cord, LYERLY, J. G., Jacksonville, Arch. Phys. Therapy, 21:459-465 (Aug.) 1940.**

Because bleeding is controlled and surgical shock thereby decreased, electrosurgery is very valuable in neurosurgery. Especially in removing brain tumors in one stage, where formerly more than one was necessary, has it proved a boon to the neurosurgeon.

One type of current used is the undamped current of high frequency in which the oscillations are of equal amplitude; this type cuts through currents with little or no coagulating effects. With modification in the amplitude of the waves coagulating effects can be obtained. A second type of current used is the coagulating current in which the waves gradually diminish in amplitude, to be followed by a pause and then recurrence of the cycle. A third type of current used is the dehydrating current which consists of very high voltage and low amperage, the electrode being held close to the tissue so that the current jumps across a gap to produce coagulation, dehydration and charring of tissue. The coagulating current is chiefly used by holding the electrode against the hemostat which is controlling bleeding, thus causing coagulation of the vessel, producing hemostasis which would have been difficult if a suture had to be

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**OBSTETRICS**—Two Weeks' Personal Course starting May 26th. Two Weeks' Intensive Course starting October 6th. Informal Course every week.

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**Indications for Fever Therapy in Syphilis,**  
PHILLIPS, KENNETH, Miami, *Urol. & Cutan.*  
*Rev.* 44:517-522 (Aug.) 1940.

In the treatment of syphilis, a combination of chemotherapy and fever therapy is much better than either alone. While clinical results are better established in relation to late syphilis, the author quotes Neymann, Lawless and Osborne as to the "ravaging effects" of two fever sessions upon the treponema in primary chancre.

The author's technic consists of treatments of from three to four hours each at temperatures from 105.4 to 106 F. bi-weekly until a minimum of 50 hours have been given. The arsenical is administered at the peak of the fever once a week; bismuth or mercury may be administered at the other fever session.

The author again calls attention to the necessity for quantitative blood studies as a "guide to treatment and observation."

**The Role of Streptococcus in Some Dental Infections: A Study of Residual Areas,** YOUNG, IVA C., and HOBBS, LAURA M., Miami, *South. M. J.* 33:1140-1144 (Nov.) 1940.

Young and Hobbs describe the criteria for diagnosis of residual dental areas capable of producing trouble. All areas operated on were cultured and in sixteen of eighteen cases a non-hemolytic streptococcus was recovered; in the other two *Streptococcus viridans* and a bacillus were found. Removal of the infected residual areas caused improvement in symptoms in almost all cases.

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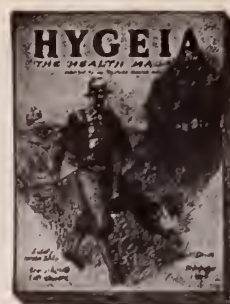


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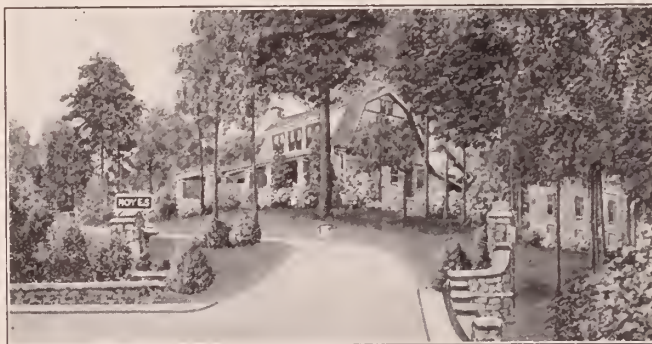
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**STATE AND SECTIONAL MEETINGS**

SOCIETY	PRESIDENT	SECRETARY	ANNUAL MEETING
Florida Medical Association .....	Walter C. Jones, Miami .....	Shaler Richardson, Jacksonville ..	Palm Beach, 1942
Florida Medical Districts:			
A—Northwest .....	William C. Roberts, Panama City ..	Stewart Thompson, Jacksonville ..	Tallahassee, October 2, 1941
B—North Central .....	Alva T. Cobb, Gainesville .....	" " " .....	Gainesville, October 3, 1941
C—Northeast .....	Maximilian Stern, Daytona Beach ..	" " " .....	St. Augustine, October 4, 1941
D—Southwest .....	Howard V. Weems, Sebring .....	" " " .....	Bartow, October 31, 1941
E—South Central .....	Carl D. Hoffmann, Orlando .....	" " " .....	Orlando, November 1, 1941
F—Southeast .....	Robert L. Elliston, Ft. Lauderdale ..	" " " .....	Ft. Lauderdale, October 30, 1941
Alabama Medical Association .....	Samuel A. Gordon, Marion .....	D. L. Cannon, Montgomery .....	
Georgia, Medical Assn. of .....	J. C. Patterson, Cuthbert .....	E. D. Shanks, Atlanta .....	Macon, May 13-16, 1941
Florida—			
Chapter, Am. College Phys. ....	Louie M. Limbaugh, Jacksonville ..	Kenneth Phillips, Miami .....	
State Dental Society .....	I. W. Shields, Miami .....	W. P. Wood, Jr., Tampa .....	Hollywood, 1941
Soc. of Derm. and Syph. ....	Alan Brown, Jacksonville .....	Lauren M. Sompayrac, Jacksonville ..	
East Coast Medical Association .....	J. S. Stewart, Miami .....	J. Ralston Wells, Daytona Beach ..	New Orleans, 1941
State Hospital Association .....	W. L. Shackelford, W. Palm Bch. ....	Mr. T. F. Alexander, Jacksonville ..	Jacksonville, June 23-28, 1941
Assn. of Industrial Surgeons .....	A. M. Bidwell, Tampa .....	T. H. Roberts, Lakeland .....	
Medical Postgraduate Course .....	Turner Z. Cason, Jacksonville .....	Chairman .....	
Soc. of Ophthal. & Otol. ....	H. Marshall Taylor, Jacksonville ..	Carl E. Dunaway, Miami .....	
State Nurses Association .....	Mrs. M. Stetson, St. Petersburg ..	Mrs. Phyllis Leonard, St. Augustine ..	
Pediatric Society .....	Warren W. Quillian, Coral Gables ..	G. N. Leonard, Miami Beach .....	Hollywood, Nov. 1941
Public Health Association .....	L. J. Graves, Tallahassee .....	E. M. L'Engle, Jacksonville .....	Orlando, December, 1941
Radiological Society .....	J. H. Lucinian, Miami .....	E. M. Hendricks, Ft. Lauderdale ..	
Railway Surgeons' Association .....	Leland F. Carlton, Tampa .....	W. C. Page, Cocoa .....	
State Pharmaceutical Association .....	Mr. P. A. Penberthy, Tampa .....	Mr. R. K. Richards, Ft. Myers .....	
Tuberculosis & Health Assn. ....	Mr. E. M. Newald, Orlando .....	Mrs. C. R. Whitaker, Eustis .....	
Chattahoochee Valley Med. Assn. ....	Frank K. Boland, Atlanta .....	Robert B. McIver, Jacksonville .....	Jacksonville, July 8-10, 1941
Gulf Coast Clinical Society .....	J. S. Turberville, Century .....	J. C. McSween, Pensacola .....	Pensacola, October, 1941
S. E. Sec., Am. Cong. Phys. Ther. ....	E. C. MacCordy, St. Petersburg ..	Kenneth Phillips, Miami .....	
Southeastern Surgical Congress .....	Irvin Abell, Louisville .....	B. T. Beasley, Atlanta .....	
Southern Medical Association .....	Paul H. Ringer, Asheville .....	Mr. C. P. Loran, Birmingham .....	St. Louis, Nov., 1941
Suwannee River Medical Society .....	T. H. Bates, Lake City .....	H. S. Howell, Lake City .....	



COMPONENT SOCIETIES BY DISTRICTS

	COUNTY SOCIETIES	PRESIDENT	SECRETARY	MEETING DATE	MEMBERS		COUNCILORS AND DATES OF MEDICAL DISTRICT MEETINGS
					Total	Paid	
A	Bay	James M. Nixon, M.D. Panama City	William C. Roberts, M.D. Panama City		12	10	A-1-'42 W. C. Roberts, M.D. Panama City
	Escambia *Santa Rosa	W. P. Hixon, M. D. 24 W. Chase St. Pensacola	A. L. Stebbins, M.D. State Board of Health Bldg. Pensacola	2nd Tuesday 8:00 P. M.	50	40	
	Walton Okaloosa	A. G. Williams, M.D. Lakewood	R. B. Sprous, M.D. DeFuniak Springs	3rd Thursday 8:00 P. M.	6	100%	
	Washington-Holmes	N. J. Dawkins, M. D. Vernon	B. W. Dalton, M. D. Vernon		7	6	
	Franklin Gulf	Thos. Merlwether, M.D. Wewahitchka	J. R. Norton, M.D. Port St. Joe	3rd Thursday	7	3	A-2-'43 W. D. Whitaker, M.D. Marianna
B	Jackson *Calhoun	M. Q. Burns, M. D. Blountstown	R. N. Joyner, M.D. Marianna	2nd Tuesday 7:30 P. M.	10	100%	
	Leon Tallahassee Liberty Wakulla Jefferson	Sterling E. Willhilt, M. D. Quincy	B. A. Wilkinson, M.D. Telephone Bldg. Tallahassee	Quarterly 3:00 P. M.	42	28	
	Volusia *Baker, Hamilton	Harry S. Howell, M.D. Blanche Hotel Annex Lake City	Thomas H. Bates, M. D. Blanche Hotel Annex Lake City	1st Monday 7:30 P. M.	11	7	B-3-'43 Engene G. Peck, M.D. Ocala
	Madison Suwannee	J. M. Price, M.D. Live Oak	I. H. Black, M.D. Live Oak		8	100%	
	Taylor *Dixie, Lafayette	Ralph J. Greene, M.D. Perry	Charles A. O'Quinn, M.D. Perry	Last Friday 8:00 P. M.	7	5	
C	Alachua *Bradford, Gilchrist Union	J. Lee Summerlin, M.D. 1 Baird Bldg. Gainesville	J. Maxey Dell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	30	15	B-4-'42 Alva T. Cobb, M.D. Gainesville
	Marion *Levy	Eugene O. Peck, M. D. Commercial Bk. & Tr. Bldg. Ocala	Harry F. Watt, M. D. Box 146 Ocala	3rd Thursday 12:30 P. M.	26	20	
	Pasco Hernando-Citrus	William R. Moon, M. D. Crystal River	G. R. Creekmore, M.D. Brooksville	2nd Thursday 7:00 P. M.	15	100%	
	Duval *Clay, Nassau	S. It. Norris, M. D. Medical Arts Bldg. Jacksonville	F. Gordon King, M. D. 422 St. James Bldg. Jacksonville	1st Tuesday 8:15 P. M.	187	182	C-5-'43 Lucian Y. Dymenforth, M.D. Jacksonville
	St. Johns	A. C. Walkup, M. D. East Coast Hospital St. Augustine	Charles C. Grace, M. D. East Coast Hospital St. Augustine	3rd Tuesday 8:30 P. M.	11	10	
D	Putnam	C. M. Knight, M.D. Palm Bay	Allen P. Gurganous, M. D. Palm Bay	2nd Tuesday in Feb., April, June, Aug., Oct., Dec. 7:00 P. M.	11	9	C-6-'42 Maximilian Stern, M.D. Daytona Beach
	Volusia *Flagler	J. R. Chandler, M. D. 110 S. Ridgewood Ave. Daytona Beach	R. L. Miller, M.D. 238 1/2 S. Beach St. Daytona Beach	2nd Tuesday 7:30 P. M.	43	35	
	Hillsborough	Robert G. Nelson, M. D. 712 Citizens Bank Bldg. Tampa	James S. Grable, M. D. 811 Citizens Bank Bldg. Tampa	1st Tuesday 8:00 P. M.	109	81	D-7-'43 John R. Bohing, M.D. Tampa
	Manatee	W. E. Wentzel, M.D. Box 245 Bradenton	Wm. D. Sugg, M. D. Bradenton Bank Bldg. Bradenton	3rd Tuesday 7:00 P. M.	14	13	
	Pinellas	Major N. W. Gable, M. C. 116th Field Artillery Camp Blanding	W. C. McConnell, M.D. 813 First Federal Bldg. St. Petersburg	1st and 3rd Fridays 6:30 P. M.	101	100%	
E	Sarasota	John C. Patterson M. D. Palmer Natl. Bk. Bldg. Sarasota	Stanley T. Martin, M.D. 361 Main St. Sarasota	2nd Tuesday 8:30 P. M.	18	16	
	DeSoto-Hardee-Iligh-lands-Charlotte-Glades	A. T. Elde, M.D. Lake Placid	Howard V. Weems, M.D. 23 Oak St. Sebring	2nd Tuesday 8:00 P. M.	21	20	D-8-'42 H. V. Weems, M.D. Sebring
	Lee *Collier, Hendry	M. F. Johnson, M. D. Box 1268 Fort Myers	H. Quillian Jones, M.D. 18-20 Leon Bldg. Fort Myers	3rd Friday 7:30 P. M.	17	100%	
	Polk	Bruce R. Tinkler, M. D. Lake Wales	S. Edgar Watson, M. D. Box 1021 Lakeland	2nd Wednesday 1:00 P. M.	60	52	
	Brevard	T. C. Kenaston, M. D. 501 Delannoy Ave. Cocoa	I. K. Hicks, M.D. Melbourne	3rd Wednesday	11	9	E-9-'42 Carl D. Hoffmann, M.D. Orlando
F	Lake *Sumter	Marlon B. O'Kelley, M.D. 203 First Natl. Bank Bldg. Leesburg	Clyde F. Bowie, M. D. 1112 W. Main St. Leesburg	1st Thursday 12:30 P. M.	19	11	
	Orange *Osceola	Frank D. Gray, M. D. 19 W. Washington St. Orlando	Fred Mathers, M.D. Box 53 Orlando	3rd Wednesday 8:30 P. M.	87	76	
	Seminole	Guy S. Selman, M.D. Sanford Clinic Sanford	Wade H. Garner, M.D. Sanford	2nd Monday 7:00 P. M.	14	11	
	St. Lucie-Okeechobee-Indian River-Martin	Joseph B. Kollar, M. D. Vero Beach	Adrian M. Semple, M.D. Box 176 Ft. Pierce	3rd Thursday 8:00 P. M.	17	100%	E-10-'43 E. B. Hardee, M.D. Vero Beach
	Broward	Frank Denniston, M.D. 616 Sweet Bldg. Ft. Lauderdale	E. C. Chamberlain, M.D. 720 Sweet Bldg. Fort Lauderdale	4th Wednesday 8:00 P. M.	41	38	F-11-'42 R. L. Elliston, M.D. Ft. Lauderdale
F	Palm Beach	Wilbur O. Arnold, M. D. Box 1785 W. Palm Beach	William E. Rippus, M. D. 601 Guaranty Bldg. W. Palm Beach	4th Monday 8:00 P. M.	66	63	
	Dade	C. Larimore Perry, M. D. 525 N. E. 15th St. Miami	Herbert Elchert, M.D. 538 duPont Bldg. Miami	1st Tuesday 8:30 P. M.	332	181	F-12-'43 W. Duncan Owens, M.D. Miami Beach
	Monroe	Harry C. Galey, M.D. 532 Fleming St. Key West	W. R. Warren, M.D. 511 Eaton St. Key West	1st Sunday 9:00 P. M.	5	100%	

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No. 12

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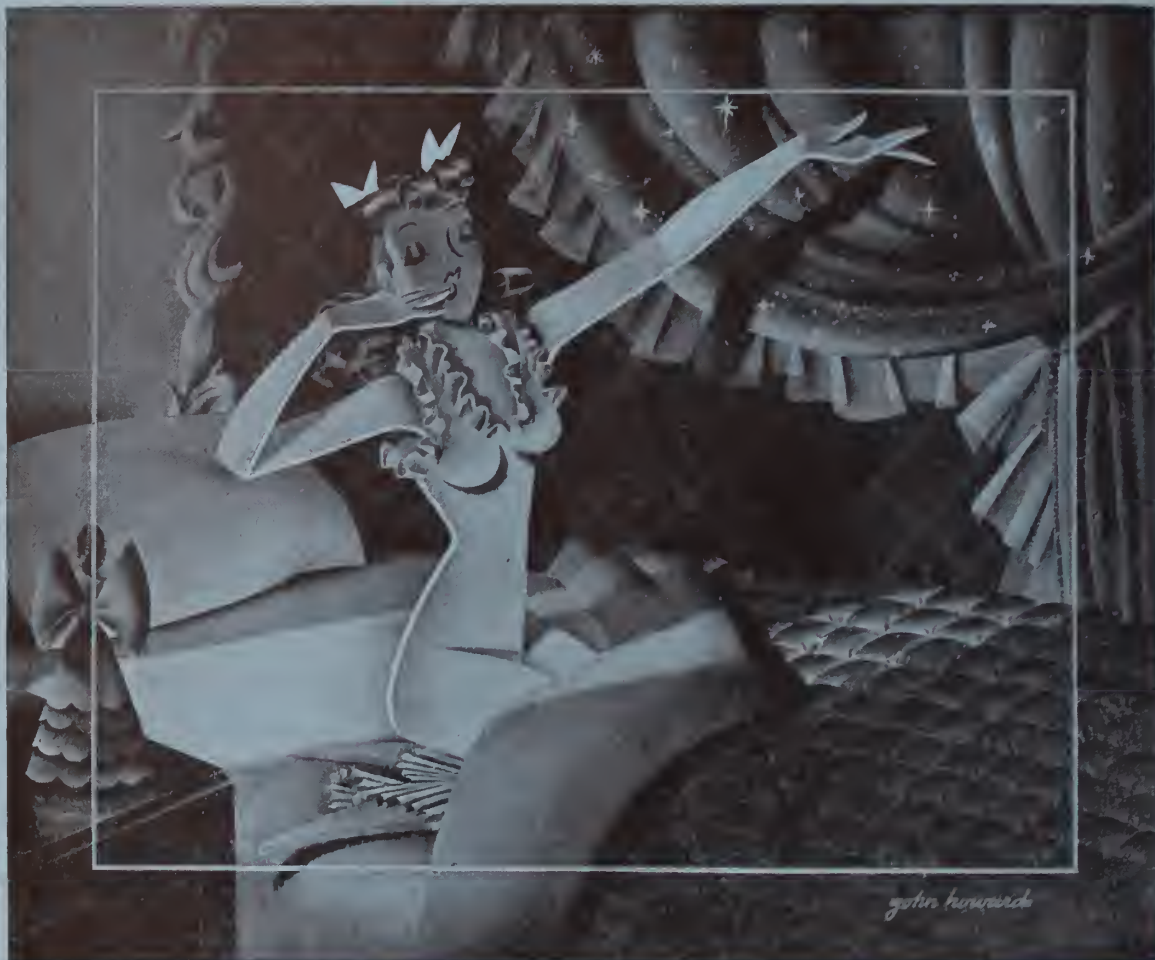
### CONTENTS

The Ethical Interrelationships of the Physician, J. S. Turberville, M. D., Century .....	591
Proceedings of the Sixty Eighth Annual Meeting of the Florida Medical Association, Inc. ....	597
First Meeting of House of Delegates .....	597
Report, Neurology .....	599
First General Session .....	600
Report, Secretary-Treasurer-Editor & Managing Director .....	600
First Scientific Assembly .....	603
Second Scientific Assembly .....	603
Second General Session .....	604
Third Scientific Assembly .....	604
Second Meeting of House of Delegates .....	604
Committee Reports:	
Scientific Work .....	605
Medical Postgraduate Course .....	605
Cancer Control .....	606
Tuberculosis and Public Health .....	606
Maternal Welfare .....	607
Child Health .....	607
Venereal Disease Control .....	608
Medical Education and Hospitals .....	609
Public Relations .....	610
Medical Economics .....	610
Interrelationship .....	610
State Controlled Medical Institutions .....	611
Advisory to Woman's Auxiliary .....	612
Representatives to Industrial Council .....	612
Council .....	614
Medical Preparedness .....	615
Executive .....	616
Fourth Scientific Assembly .....	617
Third General Session .....	617
Registration .....	618
Convention Echoes .....	621
Editorials: Walter C. Jones, our President; State Dues—Members Military Service; Annual Convention held in Jacksonville; Viola- tions of Medical Practice Act; Increased Premium for Liability Insurance; Examinations for Appointments in Medical Corps of U. S. Navy .....	623
The A. M. A. Needs a New Charter .....	627
Specialty Societies .....	627
Births, Marriages and Deaths .....	628
State News Items .....	628
Component County Societies .....	631
Advertisers' Notes .....	632
Woman's Auxiliary .....	633
Index to Volume XXVII .....	634
Index to Authors .....	642
Component Societies by Districts .....	643

### NEXT SESSIONS

American Medical Association, Atlantic City, 1942  
Florida Medical Association, Palm Beach, 1942  
Southern Medical Association, St. Louis, November 11-14, 1941





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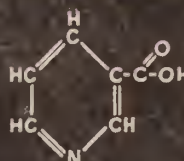


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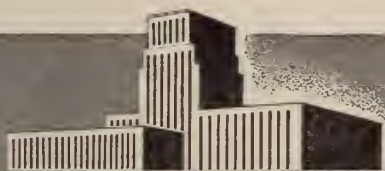
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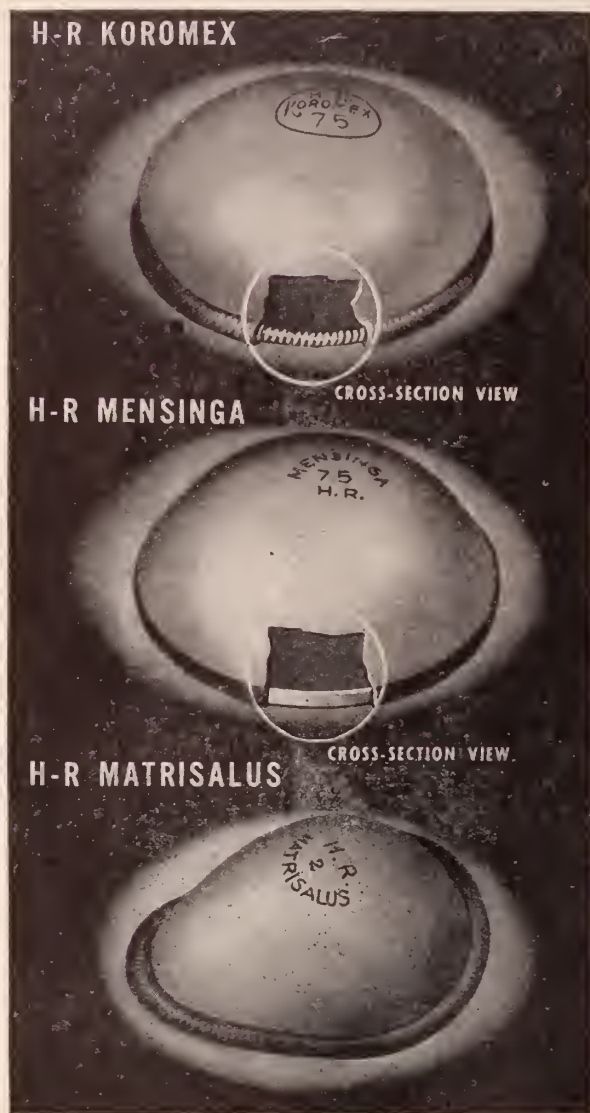
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\*Archives of Pediatrics—56:Nov., 1939  
Medical Record—Aug. 21, 1940





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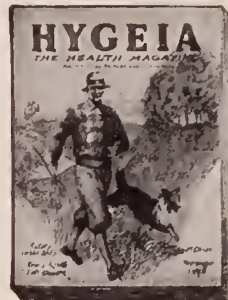
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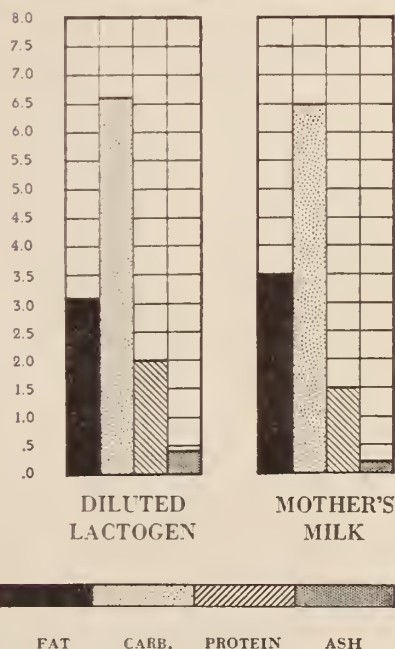


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## THE ETHICAL INTERRELATIONSHIPS OF THE PHYSICIAN

J. S. Turberville, M. D.  
Century

My friends, in speaking to you of the ethical interrelationships of the physician, I bring you no new message. In this era of intense commercialism, rapid expansion of specialism and general world excitement, it does not, however, seem amiss to touch upon some of the everyday problems of life, as reflected in our constant contacts.

In the dim past man roamed the forest alone in search of food and the female of his species. At first he was polygamous and woman was polyantrous. Such family life as then existed was evolved about the woman. Loose though it was on account of the diversity of paternity, a kind of family life came to be established, and in time, owing to the gregarious instinct of the human species, a sort of tribal life was maintained for protective purposes.

In the early tribal life cohesion was very loose and of slow progress, but where it was maintained long enough, integrations and differentiations<sup>1</sup> began to appear, such as man pursuing the chase and woman making the crude home. Further progress was evidenced by the strong man of the tribe taking the women of his choice, thereby preventing others from consorting with them. Polyandry was thus decreased. As family life became stabilized to some extent, enforced restraint gradually grew into custom. No doubt intrafamily restraints grew first among the several wives, second among the children of each wife and third among the wives' families. Increasing intelligence, growing economic pressure and many other factors forced the abandonment of polygamy among most civilized peoples.

Tribes began to cohere loosely at first into confederacies, then more firmly until they reached the status of nations. Tribes, confederacies and nations were held together by mu-

tual interest from within and by force from without. Mutual interest among the people of a community made possible the smoothing out of differences and conflicts, and in this social process there was involved a course of human relations commonly spoken of as conduct. Later, religion entered the field of human relations and put more emphasis on conduct, good and bad. The social aspects of economics were an even later development. Political, religious, social and economic restraints, together with mutual interest, became then the basis for all human relations on which conduct must be predicated.

Right is usually spoken of as ethics, but at this stage of social development it should be called relative ethics as civilization has not advanced far enough to make absolute ethics possible. For the present purpose it may be qualified further as practical ethics. I shall not speak of special ethics, except in so far as the title of this paper indicates, because the principles of ethics are unchangeable; only their application is subject to variation and this in small degree.

Whether one believes that the rules of correct conduct are by divine edict, or are the result of human experiences, the principles are the same. Consequently, any discourse based on them gives no ground for argument.

The definition of ethics varies with the concept of each person attempting to formulate it. The one that strikes me most forcefully is: "the science of human duty," a definition found in the Twentieth Century Dictionary. In other words, this science is the conduct emanating from a proper balance of egoism and altruism. Thus it becomes a moving equilibrium with elements always correlative. The political, religious, social and economic structure of our country is today very complicated with elements well integrated and having numerous differentiations. Their application is a daily function in most of our lives. The ethical interrelation-

<sup>1</sup>President's Address, presented before the Sixty-Eighth Annual Meeting of the Florida Medical Association held in Jacksonville, April 28, 29, 30, 1941.

ships of the physician herein presented pertain in particular to his family, his patient, the nurse, the hospital, his confreres, the pharmacist, the social welfare worker, the dentist, the lawyer, the minister and the church, the community, the state and the nation.

#### THE PHYSICIAN'S FAMILY

The physician should so plan his work that he will not become fatigued to such a degree as to endanger his health or impair his efficiency. He should attend as many medical meetings as possible and do as much postgraduate work as is practicable. His work should be so systemized that he can spend as much time as possible with his family and fraternize with his children. He should early buy as much insurance as he can carry and allow nothing to tempt him to borrow on it.

The wife of a physician has a hard life, telephones and door bells break her rest, and unless he is very vigilant and very considerate, her health will in many instances break under the strain. There are duties that his family owe him. They should guard carefully against discussing his work, and especially the merits or demerits of other physicians. He should not share with them information about his patients, and his family ought not to expect it. The very nature of his work requires that all his information about his patients be regarded as privileged and consequently confidential. The wife who does not understand and who becomes jealous, is sure to be a very unhappy person. The home is not the place for the physician to talk about his professional work.

#### THE PATIENT AND HIS FAMILY

The relation between the physician and the patient is both delicate and sacred; it should be predicated on the golden rule as stated positively by Christ and negatively by Confucius. The physician's attitude toward the patient and his family should be that of dignified interest, friendly courtesy and considerate sympathy. Pretense and deception have no place in this relationship except in hopeless illnesses when frankness would destroy for the patient that last of all human attributes, hope.

To accept a patient with the fee rather than the service as the first consideration is to "believe the name of physician and drag in the dust the tradition of a noble profession". No collusion

whatever should be entered into whereby any pecuniary or other consideration is received for which service has not been honestly rendered. So reprehensible is such a practice that I should hesitate to mention it except that it occurs occasionally. To my way of thinking it is worse than banditry because it is a violation of a sacred confidence and requires less personal courage.

The physician should render his best service on all occasions. He should never be so busy that he cannot find time to give a word of sympathy and extend a friendly hand. The role is not always one of sympathy, however, for there are spoiled, vindictive and tyrannizing patients whom it is just as much his duty to reprimand in no uncertain language as it is his privilege to offer others sympathy. To fail to reprove at the proper time is to subject himself to humiliation and is the means of losing the respect of the patient and the family. Nevertheless, he should exhibit no pouting or ugly mannerisms after such an episode.

The patient's family and friends should always be treated with patience, courtesy, kindness and dignity. Prolonged conferences should not be indulged in. The physician should let them understand that he is willing to give them the necessary information and to keep them informed of the progress of the case, but that he has no time to engage in lengthy medical discussions.

Ethics should be reciprocal to make life worth while. The patient, his family and friends should recognize their duties to the physician and conduct themselves accordingly. The first duty of this group is to call a physician in whom they have the utmost confidence as to character and professional ability, and then to leave him free to do his duty without being harassed by questions and suggestions. By all means he should be spared an account of how Dr. Cur-Em-All treats similar cases; he knows all these tricks worth knowing. If they have chosen the right physician, he will ask for consultation when he thinks it of value or comfort to the patient. There certainly should not be too many consultants. There are many ways to build houses, and no two carpenters approach the task alike; each builds a good house, but if both work on the house at the same time, each in his

own way, the completed building would perhaps be a curious looking structure, and then not habitable. Leave the physician alone and he will choose those who will work with him. The patient, his family and friends owe the physician many other duties not here enumerated.

#### THE NURSE

As a matter both of policy and of justice, the physician should always be considerate of the nurse, never humiliating her in the presence of the patient and reprimanding her, if necessary, in private. If she is unworthy, he should ask her to retire from the case and let her make any excuse to the family she desires, thus winning her gratitude. Needless to say, there should never be intimacies between the physician and the nurse, nor exchange of confidences except those necessary in the management of the case; neither should they gossip. They should always keep the interest of the patient uppermost in mind in their conduct toward him. The nurse should never say anything that would discredit the physician in attendance, nor suggest another. She should retire if he is unworthy and should not accept work with him again. The physician should never delegate his duties to the nurse; by so doing he lowers himself in the esteem of the nurse and of the family, and fails in his duty to both.

#### THE HOSPITAL

Many physicians have no idea of the difficulties of operating hospitals, much less of the financial burdens under which they labor at all times. City, county, state, federal and other quasi publicly owned hospitals have set such a standard of extravagance in operation that many voluntary and privately owned hospitals are today financially teetering and are able to remain open only through the patience and generosity of their creditors. The regulations of nurses' associations and training schools, and often the thoughtlessness of physicians, have resulted in abuse of hospital supplies and equipment that has further added to this burden. I have heard members of the profession complain of exploitation of physicians by hospitals, but I imagine the reverse is more often true. Let us by all means help to conserve the resources of the hospitals. Every well equipped, properly managed and ethical hos-

pital is an asset to all the agencies that have to do with the sick and infirm. It is the duty, therefore, of all concerned, especially the physician, to cooperate in every way possible. The physician should not criticize the hospital to his patients, but instead, if there is a grievance, complain to the superintendent.

Things the physician should not do include ordering expensive foods when cheaper ones are as good or better, ordering fruit juices and other food or supplies without specific indications for their use, and pampering patients, particularly when the pampering is of questionable value and at another's expense. In other words, apply the golden rule. On the other hand, the hospitals should not play favorites; they should guard the interests of the attending physicians, make no unusual charges for services and cause no unnecessary inconveniences to them or their patients. Their duties are just as binding as are those of the physician. Cooperation should be the watchword.

#### THE PHYSICIAN'S CONFRERES

Physicians have a code of ethics, and the majority of them live up to it fairly, literally, but many fall short of the spirit of it. Organized medicine has been well integrated under the cohesion of society in general and has been differentiated into many departments or specialties. So many special societies have in consequence sprung up that many specialists have lost interest in the parent organization. As a result, professional ties have been greatly weakened. Conduct based on rectitude has, therefore, been impaired. Witness such expressions as "general practitioner," "general surgeon" and "country doctor," all implying generally a lack of skill in the particular branch designated and sometimes used with intention to discredit.

The expense of medical education and the added expense of special training have made physicians more conscious of the money side of medical practice. I think it can be safely said that there are too many practicing in limited fields, and the work is often of poor quality. The public is confused over the multiplicity of specialties and patronizes the specialist to the exclusion of the "everyday doctor," thus adding to the cost of medical care. The well trained general practitioner can take care



of from 75 to 85 per cent of the ills of people and well knows when he should refer a case to someone especially skilled in treating the particular ailment.

The code of ethics of the medical profession forbids any and all underhand methods of obtaining patients. For the taking over of a patient from another physician there is a prescribed routine. Followed literally, it can at times be an instrument of tyranny, but if followed in spirit and letter, it can be an excellent way out of awkward situations.

The infrequent contacts of many specialists with everyday physicians have made them almost strangers and have lessened just so much the fine feeling of sympathy for the sphere of each that should exist between them and influence their conduct. In other words, the conduct should be that arising from the proper balance of egoistic and altruistic thinking and action. The specialist should attend general medical meetings and take part in the proceedings, and the general practitioner should be invited to and should participate in the gatherings of the specialists, thus broadening the education of each group. Every physician is under obligation to treat every other physician as an equal at all times and under all conditions. Members of the medical profession should never victimize or tyrannize a patient under the guise of applying a code of ethics, for it is to be remembered that he also has an ethical relationship.

#### THE PHARMACIST

Pharmacy was perhaps one of the first specialties in the practice of medicine as originally constituted. At first pharmacists were called apothecaries and they were really learned in the characteristics, recognition and physiologic action of crude drugs. They were artists in extracting the essence of drugs and compounding prescriptions. The modern drugstore has wandered far from the apothecary shop for its prescription department has been relegated to a relatively insignificant place. The pharmacy is now a large general store with a small cubbyhole, somewhere in a corner or at the back of the establishment, stocked with patent medicine and many other articles of questionable value that almost smother the prescription department out of view of the general public.

That which gives it standing in the community is not set apart and dignified as a separate department for servicing physicians' prescriptions. This intense commercialism has caused a lessening of attention to pharmacy as an art and is responsible for a growing loss of faith between physician and pharmacist. I think the logical development has been that the druggist has drifted away from the physician rather than the physician drifting away from him.

"Counter prescribing" is no doubt more prevalent today than ever before. There is more interest in a sale for profit than for service. Unless the present trend is corrected, and the drugstore is made a place in which paramount and permanent interest lies in the servicing of physicians' orders and prescriptions, I think I see not far distant a return to the apothecary. Notwithstanding this situation, physicians should at no time fail of broad and just conduct. They should not have druggists stock a quantity of articles under trade names, thereby requiring an unnecessary outlay of money, when the pharmacist can supply essentially the same thing. Most articles sold under trade names are expensive. Physicians should write prescriptions that require compounding and not order so many pharmaceuticals. Thus in a way the almost forgotten art of compounding prescriptions could be revived.

Druggists, on the other hand, should not "counter prescribe," nor should they allow their prescription files to be pilfered by unscrupulous physicians or other interested persons. There should never be comment on a prescription by the druggist. He should, however, see that no overdosing is permitted by the prescription and should make any correction only after private conference with the physician, who, in turn, has a like duty to the pharmacist in cases of error.

#### THE SOCIAL WELFARE WORKER

The social welfare worker is a new entry in the field of the physician's relations, is here to stay and should be treated with proper consideration. Representatives of the new organizations for social welfare need sympathy and guidance. Take them into your confidence, acquaint them with your problems, and they will be a help, not a hindrance. Many difficult situations could be solved by consultation, but mu-

tual suspicion too often causes worker and physician to meet problems alone.

#### THE DENTIST

So far as I know, the relation between the dentist and the physician has been most cordial. Both have been prudent in the limitation of their spheres of activity, and the present high relationship should be maintained. Mutual exchange of ideas more often than in the past should be of profit to the members of both professions.

#### THE LAWYER

One may be inclined to look upon lawyers as a necessary evil, but it is well to remember that they have their side. They often persecute the physician as a witness, but he is sometimes to blame because they do not understand the matter under consideration as he does, not being specialists in his field, and, too, he does not understand the legal side. Physicians often make themselves ridiculous because of lack of preparation and by taking sides as witnesses. Lawyers should not stoop to tricking the physician, and the physician should not be tricked. Lawyers should ask for information, and physicians should give it in a straightforward way. It is the duty of the physician to be informed and to stick to the truth; then he will not be subjected to gibes.

#### THE MINISTER AND THE CHURCH

A delicate situation for the physician often arises because he does not understand many church procedures. Church interests and relationships should be dealt with cautiously for fear of offense or humiliation to the patient, his family and friends. Regardless of the opinion the physician may have of a particular sect or its representatives, it is his duty to conduct himself deferentially where religious beliefs are concerned. In this topsyturvy world, all are partly right and partly wrong, and everyone is due respectful consideration for and sympathetic toleration of his religious views. The patient should always be allowed the comfort of consultation with, advice from and the prayers of his minister, unless such procedure jeopardizes his progress. Indiscrete ministers should of course be warned of their responsibilities on such occasions. In the presence of death, the utmost delicacy is called for in dealing with everyone concerned.

Ministers and the members of their churches should realize their duty to the medical profession, particularly as the minister and the physician have a common origin that in the course of the evolution of society became differentiated, the one becoming physician of the spirit, the other physician of the physical man. Some of the most unjust criticism of physicians I have ever heard has come from ministers. This should not be! These men, above all, should in their contact with the patient and his family be just in their relation to the physician. Let us importune the gentlemen of the cloth to help us and criticize our derelictions if they will, but to be charitable toward honest and unavoidable failures. Many ministers exhibit profound understanding, fine sympathy and conduct of the highest ethical type in their relations to physician and patient.

#### THE COMMUNITY

There are health problems in every community, yes, in every household; and even though there is an active health department, the physician can do much in his daily practice to make the health service more effective. To practice preventive medicine is the first duty of every family physician, and the aggregate of this service is considerable in the promotion of the common welfare. It is not wise for the physician to make many health talks in his immediate community for fear of being accused of drumming up practice. His work is that of daily hints, words of caution and, at times, downright threats to recalcitrants, particularly in regard to contagious diseases. In his home town the physician should take part in all uplift movements and make his influence felt regarding all health and sanitary problems.

The community should, on the other hand, consult the physician about matters relative to health and welfare work for he comes into daily contact with these problems and is better prepared to give advice than any other member of the community. Welfare workers and welfare departments in dealing with their problems often overlook the importance of the physician. This oversight has been repeated so often that many medical men have become resentful, and consequently there is friction instead of co-operation all too frequently between them and welfare agencies.

## THE STATE AND THE NATION

It is the duty of every citizen to be loyal to his state and nation and to give freely of whatever service is required of him. On the physician this duty is especially incumbent for he enjoys special privileges by reason of licensure. The privileges are of course earned through education and special training, but the license carries with it tremendous obligations to the general public and its business establishments, and to the state and national governments. Organized medicine is small in comparison to many other groups of society. Its members, therefore, must never permit themselves to use the method of monopolists, either as individuals or collectively. In dealing with departments of the government they should act as partners, as in fact they are, for the government is not to be viewed as something impersonal, something to be exploited. Such a view is dishonest and shortsighted, and deserves the condemnation of right thinking people. Organized medicine should discipline its members for infractions of good conduct toward the government as it does for infractions toward fellow members.

Physicians should cooperate with all state and federal health agencies in good faith and in times of emergency give as much as possible of their time, having due consideration for everyday duties and the needs of the communities in which they live. Contrarywise, the government should respect their rights as citizens and professional men, never encroaching upon them except in national emergencies. Restrictions should be removed as soon as the national peril has passed, and under no consideration should it be used as a steppingstone to destroy the free and untrammelled practice of medicine.

There should be protection against certain government agencies that have set up a sort of state medicine without due regard for the necessity of such service and in direct contraven-

tion of the rights of the tax paying private practitioners. It has been said that there are twenty-seven agencies of the government practicing medicine in some form or other. The Congress of the United States should set up a health department under a secretary of health, who should be a doctor of medicine. In this way the medical activities of these many agencies can be coordinated, and thus may be straightened out some of the inequities of this hodgepodge of medical service. Let the medical profession do its duty, and I am sure the government will not be found lacking in justice to its members.

I wish to acknowledge here the many courtesies extended and the fine cooperation given by the official family; these I shall always cherish. Your president has contacted many of the public agencies of the state, and in these contacts he has become acquainted with many delightful and sincere people who are civic minded and animated by a real spirit of helpfulness to others. These associations I shall remember with profound pleasure. The contacts were with the following agencies: the Statewide Public Health Committee, the Florida Chamber of Commerce, the Bulletin Committee of the University of Florida, the Health Education Committee of the Florida State College for Women, the Preparedness Committee Under the Auspices of the University of Florida, the Nurses' Association, the Advisory Committee of the National Youth Administration for the State of Florida and the State Board of Health. All of these agencies are operating under the guidance of well qualified leaders and are performing services of a highly unselfish kind and of a deeply patriotic nature. They deserve the sincere appreciation and unstinted praise of every citizen of Florida.

<sup>1</sup> The words *cohesion*, *integration* and *differentiation* are used in the same sense as employed in Herbert Spencer's "First Principles", and in his works on Sociology and Ethics.



# PROCEEDINGS

*of the*

## SIXTY-EIGHTH ANNUAL MEETING

*of the*

### FLORIDA MEDICAL ASSOCIATION, Inc.

#### HELD AT JACKSONVILLE

APRIL 28, 29 AND 30, 1941

#### FIRST MEETING OF HOUSE OF DELEGATES

The House of Delegates convened at 1:30 p. m., Monday, April 28, 1941 in the Banquet Hall of the George Washington Hotel, Jacksonville, with Dr. J. Sam Turberville, president, in the chair. The following delegates were seated.

#### DELEGATES

ALACHUA—E. H. Andrews.  
BAY—A. H. Lisenby.  
BREVARD—T. C. Kenaston.  
BROWARD—R. L. Elliston, E. M. Hendricks.  
COLUMBIA—R. B. Harkness.  
DADE—Homer L. Pearson, M. Jay Flipse, W. Duncan Owens, Carl E. Dunaway, Herbert Eichert, P. J. Manson.  
DUVAL—Charles B. Mabry, S. E. Driskell, W. McL. Shaw, Frederick J. Waas, Edward Jelks, H. Marshall Taylor, T. S. Field, L. Y. Dyrenforth.  
ESCAMBIA—C. C. Webb, J. N. McLane.  
FRANKLIN-GULF—A. L. Ward.  
HILLSBOROUGH—J. W. Alsobrook, T. C. Maguire, W. M. Rowlett.  
JACKSON—R. N. Joyner.  
LEE—H. J. Stipe.  
LEON-GADSDEN, et al.—J. C. Davis.  
MADISON-SUWANNEE—I. H. Black.  
MANATEE—T. M. McDuffee.  
MARION—R. D. Ferguson.  
ORANGE—H. A. Day, T. E. McBride, C. J. Collins, J. R. Chappell.  
PALM BEACH—L. J. Netto, F. K. Herpel, W. Y. Sayad.  
PASCO-HERNANDO-CITRUS—W. B. Moon.  
PINELLAS—A. J. Wood, H. W. Wade, J. A. Herring, N. W. Gable, Jr., W. C. McConnell.  
POLK—J. R. Boulware, Herman Watson, R. L. Cline.  
PUTNAM—Allen P. Gurganious.  
ST. JOHNS—Reddin Britt.  
ST. LUCIE-OKEECHOBEE, et al.—M. D. Council.  
SARASOTA—John J. Jares.  
TAYLOR—W. J. Baker.  
VOLUSIA—J. Ralston Wells, L. von Meysenbug.  
WASHINGTON-HOLMES—B. W. Dalton.  
ASSOCIATION OFFICERS—J. Sam Turberville, Walter C. Jones, John R. Boling, E. B. Hardee, Shaler Richardson.

Sixty-one delegates answered roll call and the chair declared a quorum present.

It was moved and seconded that the minutes of the last meeting, as published in the June, 1940 issue of the Florida Medical Journal, be adopted. There being no corrections or amendments, the minutes as published were adopted by unanimous vote.

Our delegates to the A. M. A. House of Delegates were then recognized.

Dr. Mallory responded: There is nothing about the A.M.A. meeting that you are not just as well informed of as I.

There is one point that I would like to bring up before this meeting. During your deliberations here I think it only fair that you should take into consideration some of our national problems. This year we have problems—national defense and what action should be taken to deal with it. It is hardly fitting for two delegates to represent fifteen hundred men without advice of some sort. I would like for you to take up these problems and give us the benefit of your advice.

In closing, I would like to express to this body my appreciation of the privilege of representing the Florida Medical Association at the national meeting.

Dr. Jelks: Gentlemen, I am a neophyte. I have no report for this session but I hope that next year I will be able to give you one.

The chair then announced that if Dr. Mallory wished to present his suggestion in written form it would be referred to Reference Committee No. 2.

Dr. Turberville called for the nomination of one delegate to the House of Delegates of the A. M. A. for a two-year term beginning January 1942. Dr. Meredith Mallory was nominated by Dr. Elliston; seconded by Dr. Cline.

Moved that the nominations be closed and the Secretary be instructed to cast a unanimous ballot for Dr. Mallory. Motion prevailed.

The chair called for nominations for an alternate. Dr. George Dawson of West Palm Beach was nominated by Dr. Sayad. A motion to close the nominations and declare Dr. Dawson elected as alternate prevailed.

The chair announced the personnel of three reference committees as follows:

1. HEALTH AND EDUCATION  
Walter C. Jones, *Chairman*  
T. Z. Cason  
J. R. Chappell  
L. W. Holloway  
Lloyd J. Netto
2. PUBLIC POLICY  
F. K. Herpel, *Chairman*  
John R. Boling  
R. D. Ferguson  
E. B. Hardee  
A. H. Weiland
3. FINANCE AND ADMINISTRATION  
Shaler Richardson, *Chairman*  
J. C. Davis  
W. C. McConnell  
Homer L. Pearson  
Frederick J. Waas

A resolution was read by Dr. W. M. Rowlett, concerning the creation of an additional hospital for the care of the insane in the central portion of Florida, namely at or in the vicinity of Avon Park. On motion the resolution was received and referred by the chair to Reference Committee No. 2, Public Policy.

A second resolution was read by Dr. W. M. Rowlett, recommending repeal of the 1939 law, concerning the appointment of committees of physicians to serve on lunacy cases. On motion the resolution was received and referred by the chair to Reference Committee No. 2, Public Policy.

Motion by Dr. Rowlett that the privileges of the floor be granted to Dr. H. Mason Smith to discuss this resolution. Dr. Smith was requested by Dr. Turberville to appear before the reference committee.

A resolution was read by Dr. E. M. Hendricks, concerning the private practice of physicians called into service for national defense. On motion the resolution was received and referred by the chair to Reference Committee No. 1, Health and Education.

A second resolution was read by Dr. Hendricks, concerning the placing of specialists in their proper capacities by the Army and the Navy. On motion the resolution was received and referred by the chair to Reference Committee No. 1, Health and Education.

A resolution was read by Dr. Homer L. Pearson, recommending that membership of physicians in military service be continued without the payment of dues. On motion the resolution was received and referred by the chair to Ref-

erence Committee No. 3, Finance and Administration.

A resolution was read by Dr. C. E. Dunaway, requesting that a place be given on the program in the school of instruction for an ophthalmologist or otolaryngologist. On motion the resolution was received and referred by the chair to Reference Committee No. 1, Health and Education.

A resolution was read by Dr. H. A. Day, concerning the establishment of a committee to be known as the Executive Legislative Committee. On motion the resolution was received and referred by the chair to Reference Committee No. 3, Finance and Administration.

A second resolution was read by Dr. H. A. Day, recommending a change in the composition of the State Board of Medical Examiners. On motion the resolution was received and referred by the chair to Reference Committee No. 2, Public Policy.

A resolution was read by Dr. W. D. Webb, concerning the Florida Crippled Children's Commission. On motion the resolution was received and referred by the chair to Reference Committee No. 2, Public Policy.

A recommendation from the Executive Committee that the 1942 annual meeting be held in West Palm Beach was read by Dr. G. S. Osincup. On motion the recommendation was received and referred by the chair to Reference Committee No. 3, Finance and Administration.

The report of the Executive Committee was read by Dr. G. S. Osincup, chairman. On motion the report was received and referred by the chair to Reference Committee No. 3, Finance and Administration.

The report of the Committee on Scientific Work was read by Dr. H. E. White, chairman. On motion the report was received and referred by the chair to Reference Committee No. 1, Health and Education.

Question by Dr. J. R. Wells concerning the adoption of Doctor Pearson's resolution on the active membership of medical men in military service.

Dr. Turberville: This resolution was not adopted but was referred to Reference Committee No. 3, Finance and Administration.

In the absence of the chairman, Dr. George D. Lilly, no report of the Publication Committee was presented.

A verbal report of the Committee on Legislation and Public Policy was given by Dr. H. D. Van Schaick, chairman.

The report of the Committee on Medical Education and Hospitals was read by Dr. R. D. Ferguson, chairman, and on motion, was received and referred by the chair to Reference Committee No. 2, Public Policy.

The report of the Committee on Public Relations was read by Dr. J. R. Wells, chairman, and on motion, was received and referred by the chair to Reference Committee No. 2, Public Policy.

The report of the Committee on Necrology was read by Dr. H. A. Barge, chairman.

#### REPORT OF COMMITTEE ON NECROLOGY

During the fiscal year ending in April, 1941, our Association lost by death the members whose names are listed below:

George E. Adams, Jacksonville  
N. A. Baltzell, Marianna  
Van W. Burns, Stuart  
Benjamin F. Eckman, Miami  
William E. Foy, Ft. Pierce  
Albert H. Freeman, Ocala  
William A. Haggard, Miami  
M. M. Hannum, Eustis  
Ernest B. Hatch, Miami  
Roy J. Holmes, Miami  
Frank S. Jennings, St. Petersburg  
Seeber King, Lake Butler  
A. B. McCreary, Jacksonville  
Edmond J. Melville, St. Petersburg  
L. B. Mitchell, Tampa  
F. Clifton Moor, Tallahassee  
Herman Perkins, Panama City  
Fred Puleston, Daytona Beach  
M. E. Quina, Pensacola  
Ralph E. Stevens, Chattahoochee  
J. A. Strickland, St. Petersburg  
Cullen B. Wilson, Sarasota

When possible, obituaries have appeared in the Journal relative to the deaths of these doctors. Tributes have been paid to them in the different communities where they have practiced. May we at this time stand in a moment of silence, in reverence and respect to the memory of our departed colleagues.

Respectfully submitted  
H. A. Barge, *Chairman.*

Motion by Dr. Peek that Dr. Jesse M. Willis' name be added to the Necrology Report. Seconded and carried. A motion to adopt the report on Necrology as amended was made, seconded and unanimously carried.

In the absence of the chairman, Dr. Gordon Ira, the report of the Advisory Committee to the Woman's Auxiliary was read by Dr. Barge. On motion the report was received and referred by the chair to Reference Committee No. 2, Public Policy.

The report of the Committee on the Medical Postgraduate Course was read by Dr. T. Z.

Cason, chairman. On motion by Dr. Edward Jelks this report was received and referred by the chair to Reference Committee No. 1, Health and Education.

In the absence of the chairman, Dr. J. M. Hoffman, the report of the Committee on Cancer Control was read by Dr. Collins, and on motion, was received and referred by the chair to Reference Committee No. 1, Health and Education.

The report of the Committee on Medical Economics was read by Dr. H. A. Walker, chairman, and on motion, was received and referred by the chair to Reference Committee No. 2, Public Policy.

The report of the Committee on Venereal Disease Control, in the absence of the chairman, Dr. E. T. Sellers, was not read but was later referred to Reference Committee No. 1, Health and Education.

The report of the Committee on Inter-Relationship, in the absence of the chairman, Dr. E. C. Swift, was not read but was later referred to Reference Committee No. 2, Public Policy.

The report of the Committee on Tuberculosis and Public Health was read by Dr. M. J. Flipse, chairman, and on motion, was received and referred by the chair to Reference Committee No. 1, Health and Education.

The report of the Committee on State Controlled Medical Institutions was read by Dr. D. A. McKinnon, chairman, and on motion, was received and referred by the chair to Reference Committee No. 2, Public Policy.

The report of the Committee on Maternal Welfare, in the absence of the chairman, Dr. F. Richards, was not read but was later referred to Reference Committee No. 1, Health and Education.

The report of the Committee on Child Health was read by Dr. W. W. Quillian, chairman, and on motion, was received and referred by the chair to Reference Committee No. 1, Health and Education.

The report of the Council, in the absence of the chairman, Dr. R. B. McIver, was not read but was later referred to Reference Committee No. 3, Finance and Administration.

The report of Representatives to Industrial Council was read by Dr. J. C. Davis, chairman,



and on motion, was received and referred by the chair to Reference Committee No. 2, Public Policy.

A verbal report was given from the General Advisory Board of Past Presidents by Dr. Ralph N. Greene, chairman.

The report of the Committee on Medical Preparedness was read by Dr. Edward Jelks, chairman, and on motion, was received and referred by the chair to Reference Committee No. 3, Finance and Administration.

Dr. Turberville received and read a telegram from the Southeastern Pharmaceutical Association expressing their best wishes for a successful annual meeting.

Dr. Jones announced that Reference Committee No. 1, on Health and Education, would meet in room 228 at 6 p. m.

Dr. Herpel announced that Reference Committee No. 2, on Public Policy, would meet in room 230 at 5:15 p. m.

Dr. Richardson announced that Reference Committee No. 3, on Finance and Administration, would meet in Parlor B at 6 p. m.

There being no further business to come before the meeting, on motion seconded and carried, the House recessed at 4:30 p. m. to reconvene Tuesday, April 29 at 4:30 p. m.

### FIRST GENERAL SESSION

The Sixty-Eighth Annual Meeting of the Florida Medical Association was called to order at 4:30 p. m., Monday, April 28, in the Ballroom of the Roosevelt Hotel, Jacksonville, by President J. Sam Turberville.

Invocation by the Right Reverend D. A. Lyons.

Dr. S. R. Norris, President of the Duval County Medical Society, gave the address of welcome.

After relinquishing the chair, Dr. J. Sam Turberville delivered the presidential address. (*See page 591.*)

A rising vote of thanks was accorded President Turberville in appreciation of his splendid work during the past year.

The following report of the secretary-treasurer and editor of the Journal, Dr. Shaler Richardson, and managing director, Dr. Stewart Thompson, was read by Dr. Richardson:

### REPORT OF SECRETARY-TREASURER-EDITOR OF THE JOURNAL, DR. SHALER RICHARDSON; AND MANAGING DIRECTOR, DR. STEWART THOMPSON

Mr. Chairman, Members of the Association, and Guests:

In this, our sixteenth annual report, we are gratified to state that the income from all sources during the past fiscal year surpassed expenditures by a total of \$1,087.52. Your Association's expenses have increased each year through an enlarged program of activities. The officers and members are using the service available in the central office more each year.

The membership last year totaled 1,405, as compared to 1,353 for the previous year. This represents a net increase of 52 members. The names of the 1,405 members were published in the Florida Medical Directory by component societies and will, therefore, not be reproduced here. The Dade County Medical Society headed the list with 332 members; the Duval County Medical Society had 185; the Hillsborough County Medical Society, 107; and the Pinellas County Medical Society, 105. The attendance at last year's annual convention held in Tampa was 879, as compared with an attendance of 620 at the previous annual meeting.

The personnel of your office has assisted the officers of the Association, the regular committees and the Council in the various activities throughout the year. One new committee, on Medical Preparedness, was added during the year. The chairman of this new committee utilized the services available in the central office for mailing questionnaires, mimeographing letters of instruction, addressing envelopes and other details in connection with the work of his committee. Your home office and Journal are maintained for all of the members. Since it is your office and your Journal, we hope that you will contribute suggestions and constructive criticism from time to time, and thus make it possible to carry on the work according to your wishes.

The circulation of the Journal is steadily increasing. During the year 19,989 Journals were mailed out and 63 scientific papers were published. Articles by our members, published in out-of-state journals and abstracted for publication in our Journal, totaled 22. The 1941 Florida Medical Directory was mailed to 2,464 doctors. The advertisements and sale of Directories more than covered the cost of printing. Through circumstances beyond our control, the Directory was mailed two months later than last year. The value and importance of this publication of your Association is evidenced by the many inquiries received for the 1941 Directory.

During the year 16,446 letters and forms were produced on the mimeograph. A total of 11,182 letters was mailed and 4,504 letters were received through the mail. In addition to this, 1,134 medical journals were received and filed.

### FINANCES

The financial statements appearing at the end of this report will be published in full. Receipts during the fiscal year totaled \$21,900.15; disbursements were \$20,812.63, leaving a balance of \$1,087.52. For the benefit of our members who do not study the financial statements, the Association's revenue is derived largely as follows:

Dues and entrance fees, \$13,730.00; earnings from advertising in the Journal and Medical Directory, \$5,693.84; interest on savings and investments, \$300.51; rental on technical exhibits, \$1,899.50.

Expenditures during the year included: from the general fund, \$9,017.24; printing of the Journal and Directory, \$7,893.83; convention expense, \$852.97, taken from exhibit income; expenses of standing committees, \$1,306.59; office equipment, \$314.09; library, \$53.88; and Federal tax, \$23.82.

Diligent effort has been put forth to increase the membership, organize new county medical societies, raise the standard of and interest in your Journal, make your Medical Directory a valuable reference book, increase advertisements, and in every way possible make your home office

a service station available to the entire membership.

The books and records of the Association are open to our members and we will be glad to answer inquiries, as far as possible, of any nature. The books have been audited by Ford and Colley, and a certification thereof is incorporated in the statements which follow.

Respectfully submitted,  
Shaler Richardson  
Stewart G. Thompson.

FORD & COLLEY  
Certified Public Accountants

April 25, 1941

Dr. Shaler A. Richardson, Treasurer,  
Florida Medical Association, Incorporated,  
Jacksonville, Florida.

Dear Sir:

We have examined the attached statements of Receipts and Disbursements of Florida Medical Association, Incorporated, Exhibits "A" to "E" both inclusive, for the period begun April 16, 1940, and ended April 14, 1941. These statements have been prepared by Dr. S. G. Thompson, Managing Director of the Association and the Florida Medical Journal, and Mrs. Naomi Hilton, bookkeeper, and correctly reflect the cash transactions for the period stated as shown by the books of account.

We have checked the additions of the cash record and have compared the disbursements as entered therein with the cancelled checks returned by the bank. We have checked the recorded collections to the bank deposits as shown by the bank's statements and have obtained the written confirmation of the bank as to the balance at the close of the period. We have obtained the written confirmations of the banks as to the savings accounts. We have checked the general ledger postings and have verified the general ledger additions.

As we do not have access to the records of the various County Societies for the purpose of checking the remittances of dues, attention is directed to Exhibit "D" herewith which gives details regarding this matter.

Income from Journal advertising was verified substantially by comparison with a detailed statement of contracts with advertisers furnished by the Association's office.

The ten United States Government bonds for \$1,000.00 each which were on hand at the beginning of the period were called during the period and have been replaced by one \$10,000.00 2% United States Treasury Bond. This bond was inspected by us.

We found the books in their usual good condition.

Yours very truly,  
FORD AND COLLEY.

CONSOLIDATED CASH STATEMENT  
April 16, 1940 through April 14, 1941

*Receipts*

Cash in Bank, April 15, 1940	\$ 24,393.99	
Dues and Entrance Fees Collected (Exhibit "D")	\$13,730.00	
Earnings from Advertising (Exhibit "E")	5,693.84	
Subscription and Misc. Sale of Journal and Directory	76.30	
Interest on Savings and Investment	300.51	
Medicolegal Aid—Deposit by Dade Co. Med. Society	200.00	
Earnings—Technical Exhibits (Exhibit "C")	1,899.50	21,900.15
Total Cash to be Accounted for		\$ 46,294.14

*Disbursements*

General Fund Expenses (Exhibit "A")	\$ 9,017.24	
Journal and Directory Expenses (Exhibit "B")	7,893.83	
Technical Exhibit Expenses (Exhibit "C")	852.97	
To Entertaining Society	768.80	1,621.77
Committee Expenses (Exhibit "A")	1,306.59	
Furniture Fixtures and Equipment	314.09	
Library	53.88	
Federal Tax	23.82	
Medicolegal Aid	581.41	20,812.63
Balance in Bank, April 14, 1941		\$ 25,481.51

EXHIBIT "A"

CASH STATEMENT—GENERAL FUND  
April 16, 1940 through April 14, 1941

*Receipts*

Cash as per last audit	\$ 24,393.99	
Back Dues Collected (Exhibit "D")	\$ 2,650.00	
Current Dues Collected (Exhibit "D")	10,180.00	
Entrance Fees Collected (Exhibit "D")	900.00	13,730.00
Interest on Savings and Investment		300.51
Medicolegal Aid—Deposit by Dade Co. Med. Soc.		200.00
From Exhibit Fund		277.73
Total Cash to be Accounted for		\$ 38,902.23

*Disbursements*

Postage and Supplies	\$ 329.71	
Telephone and Telegraph	222.47	
Salaries	6,900.00	
Traveling Expense	307.10	
Delegates' (2) Transp. to New York	147.70	
Legal Counsel	100.00	
Office Rent	720.00	
Towel Service	15.00	
Auditing Books	12.50	
Messenger Service	12.35	
Express	.25	
Bank Exchange	3.78	
Custody of Bonds	10.00	
Photostats and Legal Copies	5.00	
News Service	8.00	
Clipping Service	60.00	
Treasurer's Bond	18.75	
Subscription— Times Union	7.20	
Employers' Liability Insurance	23.00	
Constitution and By-Laws	77.00	
Incidental	37.43	9,017.24
Committees:		
Council	281.49	
Legislative	758.45	
Postgraduate Course	10.75	
Executive	19.47	
Medical Preparedness	129.82	
Public Relations	57.00	
Scientific Work	24.46	
Misc. Committee Expense	25.15	1,306.59

Furniture, Fixtures and Equipment .....	314.09	
Library .....	53.88	
Federal Tax .....	23.82	
Medicolegal Aid .....	581.41	
To Jnl. & Directory Fund (Cost above Income) ..	2,123.69	13,420.72

CASH BALANCE ..... \$ 25,481.51

## EXHIBIT "B"

## CASH STATEMENT—JOURNAL AND DIRECTORY FUND

April 16, 1940 through April 14, 1941

## Receipts

Cash as per last audit .....	\$	0.00
Earnings from Advertising (Exhibit "E") .....	\$5,693.84	
Subscriptions and Misc. Sale .....	76.30	
From General Fund .....	2,123.69	7,893.83

To be Accounted for ..... \$7,893.83

## Disbursements

Postage and Supplies .....	\$	280.90
Printing and Stock .....	4,670.19	
Telephone and Telegraph .....	78.71	
Salaries .....	2,761.59	
Dray .....	15.00	
Auditing Books .....	12.50	

Photostats .....	.50	
Messenger Service .....	8.80	
Express and Freight .....	4.46	
Treasurer's Bond .....	18.75	
Cuts and Repair of Cuts .....	31.81	
Addresograph Service and Repair .....	10.62	7,893.83

CASH BALANCE ..... \$ 0.00

## EXHIBIT "E"

## EARNINGS FROM ADVERTISING

April 16, 1940 through April 14, 1941

May, 1940 .....	\$ 331.82
June .....	516.04
July .....	456.96
August .....	450.85
September .....	408.38
October .....	431.08
November .....	374.30
December .....	452.92
January, 1941 .....	322.63
February .....	458.99
March .....	394.92
April .....	617.50

\$5,216.39

Refund, A. M. A. .... 477.45

TOTAL ..... \$5,693.84

## EXHIBIT "D"

Dues and Entrance Fees Collected April 16, 1940 through April 14, 1941

Name of Society	Total Members	No. Paid Members	No. in Arrears	1941 Dues Collected	Back Dues Collected	Entrance Fees
Alachua .....	30	17	13	\$ 130.00	\$ 90.00	\$ 10.00
Bay .....	12	10	2	80.00	30.00	10.00
Brevard .....	11	9	2	80.00	20.00	20.00
Broward .....	41	38	3	360.00	10.00	20.00
Columbia .....	11	7	4	60.00	30.00	10.00
Dade .....	332	182	150	1,780.00	1,220.00	280.00
Desoto-Hardee-Highlands						
Charlotte-Glades .....	21	19	2	180.00	20.00	10.00
Duval .....	187	182	5	1,710.00	50.00	90.00
Escambia .....	50	37	13	350.00	110.00	80.00
Franklin-Gulf .....	6	3	3	20.00	10.00	
Hillsborough .....	109	76	33	710.00	260.00	50.00
Individuals .....	1	0	1			
Jackson .....	10	8	2	70.00	30.00	10.00
Lake .....	19	10	9	90.00	70.00	10.00
Lee .....	17	16	1	150.00	30.00	
Leon-Gadsden-Liberty-						
Wakulla-Jefferson .....	40	23	17	210.00	90.00	50.00
Madison-Suwannee .....	8	6	2	40.00	30.00	
Manatee .....	14	12	2	100.00		
Marion .....	25	19	6	140.00		
Monroe .....	5	5	0	40.00		
Orange .....	87	74	13	700.00	70.00	60.00
Palm Beach .....	66	59	7	570.00	80.00	40.00
Pasco-Hernando-Citrus .....	15	14	1	130.00		20.00
Pinellas .....	104	104	0	1,000.00		30.00
Polk .....	60	52	8	500.00	80.00	10.00
Putnam .....	11	7	4	60.00	50.00	10.00
St. Johns .....	11	10	1	90.00	10.00	10.00
St. Lucie-Okeechobee-Indian						
River-Martin .....	18	18	0	160.00	30.00	10.00
Sarasota .....	16	12	4	110.00	110.00	10.00
Seminole .....	14	11	3	100.00	10.00	20.00
Taylor .....	7	5	2	40.00	20.00	10.00
Volusia .....	43	35	8	320.00	60.00	20.00
Walton-Okaloosa .....	6	6	0	50.00		
Washington-Holmes .....	7	6	1	50.00	30.00	
TOTALS .....	1,414	1,092	322	10,180.00	2,650.00	900.00

2,650.00 Back dues Collected

\$12,830.00 Total dues Collected

900.00 Entrance fees Collected

\$13,730.00 DUES AND ENTRANCE FEES



EXHIBIT "C"

CASH STATEMENT—EXHIBIT FUND

April 16, 1940 through April 14, 1941

Receipts

Cash as per last audit	\$ 0.00
Earnings from Technical Exhibit	1,899.50
To be Accounted for	\$ 1,899.50

Disbursements

Convention Expense:		
Postage and Supplies	\$ 46.50	
Telephone and Telegraph	43.33	
Floor Plan and Electrotape	60.40	
Sign Painting	8.75	
Exhibit Booth Equipment	313.68	
Printing	12.75	
Badges	79.38	
Employees' Transportation	148.65	
News Service, Cuts and Mats	21.05	
Proceedings Reporter	92.85	
Express	2.33	
Mimeographing (Registration)	12.25	
Incidental	11.05	852.97
To Entertaining Society:		
Hillsborough	34.00	
Duval	734.80	768.80
To General Fund	277.73	1,899.50
CASH BALANCE		\$ 0.00

ASSETS AND LIABILITIES

April 14, 1941

Assets

Cash in Bank	\$12,210.23
General Fund—Accounts Receivable	3,220.00
Journal & Directory Fund—Accts. Receiv.	527.70
Furniture, Fixtures & Equipment (less depreciation)	1,307.42
Library	648.08
Stationery Inventory	610.22
Savings: Atlantic National Bank	4,331.81
Barnett National Bank	8,939.47
Investment (Treasury Bond)	10,178.13
	\$41,973.06

Liabilities

Medicolegal Aid to Dade Co. Med. Soc.	\$ 40.00
Capital Account	41,933.06
	\$41,973.06

EMERGENCY FUND—(Memorandum No. 4)

(Taken from Treasurer's Financial Statement)

April 16, 1940 through April 14, 1941

Debit

Balance on Hand, April 15, 1940 (Overdraft)	\$ 402.08
(Memorandum No. 3)	
Back dues Collected (Exhibit "D")	
\$2,650.00 (265 members @ \$2.50)	\$ 662.50
Current dues Collected (Exhibit "D")	
\$10,180.00 (1018 members @ \$2.50)	2,545.50
	3,207.50
To be Accounted for	\$2,805.42
Less Amount Reserved for Working Budget and Expended	1,500.00
BALANCE	\$1,305.42

Credit

Committee Expenses:	
Council	\$281.49
Legislative Committee	758.45
Postgraduate Course	10.75
Executive	19.47
Medical Preparedness	129.82
Public Relations	57.00
Scientific Work	24.46
Misc. Committee Expense	25.15
	1,306.59
BALANCE (Overdraft)	\$ 1.17

Dr. Charles R. Andrews, Jr., of Canton, Georgia, official representative of the Medical Association of Georgia, was introduced.

On motion duly seconded and carried, the general session recessed to reconvene Tuesday April 29 at 11:30 a. m.

FIRST SCIENTIFIC ASSEMBLY

The Scientific Assembly convened at 7:00 p. m., Monday, April 28, in the Ballroom of the Roosevelt Hotel, with Dr. James H. Pound presiding.

The following papers were read and discussed:

1. "Sporotrichosis" (Lantern Slides), Elmo D. French, Miami.
2. "The Care of the Premature Infant" (Lantern Slides), N. O. Pearce, Miami Beach.
3. "Congenital Cystic Lung Disease in Infancy: Report of a Case" (Lantern Slides), Hillard W. Willis, Coral Gables.

SECOND SCIENTIFIC ASSEMBLY

The Second Scientific Assembly was held Tuesday, April 29, at 9:00 a. m., Dr. Herbert E. White, presiding.

The following papers were read and discussed:

4. "Medicine and the Florida Criminal Law," Frederick H. Dieterich, Miami.
5. "Application of the Synthetic Sex Hormones, Male and Female, in Their Newer Forms" (Lantern Slides), Carlos P. Lamar, Miami.
6. "Obstetrics" (Symposium)
  - a. "Management of Labor in Abnormal Presentations," Robert G. Nelson, Tampa.
  - b. "The Role of the Delivery Home in Treating the Low Income Group," James M. Hoffman, Pensacola

- c. "Toxemias of Pregnancy" (Lantern Slides), Samuel R. Norris, Jacksonville.

## SECOND GENERAL SESSION

The General Session of the Florida Medical Association reconvened at 11:30 a. m., Tuesday, April 29, 1941, in the Ballroom of the Roosevelt Hotel, President Turberville in the chair.

The meeting was called to order.

The guest speaker, Dr. Seale Harris, Professor Emeritus of Medicine, University of Alabama, Birmingham, was introduced by Doctor Turberville.

Address, "Banting, Benefactor of Mankind," by Dr. Seale Harris.

At the President's request the membership stood for a moment in honor of Dr. Harris.

On motion, the meeting adjourned.

## THIRD SCIENTIFIC ASSEMBLY

The third Scientific Assembly was held Tuesday, April 29, at 1:45 p. m., Dr. Herbert E. White presiding:

The following papers were read and discussed:

7. "Preventriculosis" (Lantern Slides), Charles J. Heinberg, Pensacola.
8. "The Use of Vitamins in Surgery," J. Rocher Chappell, Orlando.
9. "Conditions Simulating Appendicitis," Frank G. Slaughter, Jacksonville.
10. "Surgical Treatment of Extensive or Advanced Cancers of the Skin", (Lantern Slides), Richard M. Fleming, Miami.

## SECOND MEETING OF THE HOUSE OF DELEGATES

The House of Delegates reconvened at 4:30 p. m., Tuesday, April 29, 1941 in the Banquet Hall of the George Washington Hotel, Jacksonville, President Turberville in the chair. Forty-nine delegates answered roll call:

### DELEGATES

ALACHUA—E. H. Andrews.  
BREVARD—T. C. Kenaston.  
BROWARD—R. L. Elliston, E. M. Hendricks.  
COLUMBIA—R. B. Harkness.  
DADE—M. Jay Flipse, W. Duncan Owens, Carl E. Dunaway, P. J. Manson.  
DESOTO—HARDEE, et al.—H. V. Weems.  
DUVAL—Charles B. Mabry, S. E. Driskell, W. McL. Shaw, Frederick J. Waas, Edward Jelks, H. Marshall

Taylor, L. Y. Dyrenforth.  
ESCAMBIA—J. N. McLane.  
FRANKLIN—GULF—A. L. Ward.  
LEON—GADSDEN, et al.—J. C. Davis.  
MADISON—SUWANNEE—I. H. Black.  
MANATEE—T. M. McDuffee.  
MARION—R. D. Ferguson.  
ORANGE—H. A. Day, T. E. McBride, C. J. Collins, J. R. Chappell.  
PALM BEACH—L. J. Netto, F. K. Herpel, W. Y. Sayad.  
PASCO—HERNANDO—CITRUS—W. B. Moon.  
PINELLAS—A. J. Wood, H. W. Wade, W. C. McConnell.  
POLK—J. R. Boulware, Herman Watson, R. L. Cline.  
PUTNAM—Allen P. Gurganious.  
ST. JOHNS—Reddin Britt.  
ST. LUCIE—OKEECHOBEE, et al.—M. D. Council.  
SARASOTA—John J. Jares.  
TAYLOR—W. J. Baker.  
VOLUSIA—J. Ralston Wells, L. von Meysenbug.  
WASHINGTON—HOLMES—B. W. Dalton.  
ASSOCIATION OFFICERS—J. Sam Turberville, Walter C. Jones, E. B. Hardee, Shaler Richardson.

There being a quorum present, the meeting was called to order. Dr. Walter C. Jones, Chairman of Reference Committee No. 1, Health and Education, was recognized and asked to present the recommendations of that committee.

### REPORT OF REFERENCE COMMITTEE NO. 1

"The Committee recommends, with Dr. E. M. Hendrick's permission, that his resolution be amended to read as follows:

### RESOLUTION

In view of the present national emergency which is calling our young medical men to Service in the Armed Forces of the nation, and in view of the unselfish and patriotic spirit with which they are cooperating and answering this call, giving up all home ties and voluntarily wrecking all they have built up for themselves,

#### *Be It Resolved:*

1. That the Florida Medical Association go on record as anxious to preserve for these men as much of their practice as possible.
2. That they recommend to the hospitals of this State that they preserve for them their staff positions.
3. That the following procedure be recommended to the physicians in the State of Florida:
  - (a) that before going into the Service all physicians refer to a physician remaining in civilian life all patients as far as practical; that as far as possible, these patients and the physician be notified of this procedure.
  - (b) that the physician who remains in civilian life and handles these patients keep a record of the names of the patients and the doctors and the physician referring.
  - (c) that at the time the patient referred makes the first call on the physician to whom the patient is referred, this individual be notified that he has been referred by a physician now in the Service and it will be necessary to return to the original physician as soon as he resumes practice.
  - (d) that as far as possible the physician in civilian life will try to ascertain when a new patient comes to him if this patient has been referred by a physician in Military Service or is seeking medical service because his regular physician has been called to Service and then make every reasonable effort to return that patient to his physician upon his resuming practice.

It was moved and seconded that the resolution be accepted as read.

#### Discussion

Dr. Wells: I would like to ask if that means that his seniority is to be preserved for him as well as his staff position in the hospital. In other words, if the man had not gone away for two or possibly three years he would have advanced, and upon his return would he be placed in the same staff position or in the place to which he would have advanced.

Dr. Hendricks: I think the resolution is sufficient.

Dr. Jones: This is not mandatory upon the hospitals, nor mandatory upon any physician. It simply expresses good will toward the men who are sacrificing their practice in order to take up military service. The details, I think, as outlined here are ample. It is up to the hospitals individually as to whether they should preserve seniority or not.

Motion to accept the resolution prevailed.

"The Committee recommends that the second resolution of Dr. Hendricks, is unnecessary because it is known to the Committee that every effort is being made to classify medical men entering the Service."

#### RESOLUTION

*In view of the fact that during the past world war medical men were used in all capacities and regardless of their specialties, BE IT RESOLVED that the Surgeon Generals of the Army and Navy be requested to use those specialists in their proper capacities and ability.*

Motion to reject the resolution prevailed.

"The Committee, after considering the resolution by Dr. C. E. Dunaway, finds that the curriculum of the short course for this year has been completely filled. If the Ophthalmology and Otolaryngology Society desires a special course in the future it is recommended that they confer with the Medical Postgraduate Course Committee."

#### RESOLUTION

*Mr. President and Delegates:*

*At a meeting of the Florida Society of Ophthalmology and Otolaryngology a resolution was adopted requesting that an ophthalmologist or otolaryngologist or both be given a place on the program in the school of instruction for this year.*

It was moved and seconded that the Society of Ophthalmology and Otolaryngology make their application early enough before the postgraduate course next year to get one of their members on next year's program. Unanimously carried.

"The Committee recommends that the report of the Committee on Scientific Work be accepted and filed as read." It was moved and seconded that the report be accepted. Motion prevailed.

#### REPORT OF COMMITTEE ON SCIENTIFIC WORK

Your Committee on Scientific Work has prepared a program of four scientific sessions comprised of sixteen papers and a clinicopathologic conference. The essayists were carefully selected and it is hoped that the papers presented will be of value and interest to the listeners and to the readers of the Journal.

In October of last year a communication was mailed to every member of the State Association, soliciting papers for the scientific program. In this way the entire membership was canvassed so that no good material would be overlooked when the final program was arranged. In all, only eighteen applications were received. To balance the program properly, duplication of subject matter was eliminated and a geographical spread of the essayists was worked out as far as possible. The small number of applications received presented a difficult problem for your Committee. In past years there have usually been two or three times as many applications as could be accepted. The excitement and activity in connection with preparedness and the unusual amount of sickness throughout the state apparently caused our members to postpone their usual efforts along the lines of medical writing. The best possible program that could be arranged under existing circumstances will be presented this year. The members of your Committee urge a full attendance at all scientific sessions and request the members to enter into the discussions as far as possible. A full discussion of a paper not only adds to its interest and value, but also is an encouragement to the essayist.

I wish to express a word of appreciation to the other five members of the Committee on Scientific Work. At our meeting in Orlando, January 19, one hundred per cent of our committee members were present, which is an unusual record. Each member of our Committee was vitally interested in preparing an excellent scientific program and this splendid cooperation was largely responsible for the results obtained. I wish to personally thank Dr. Stewart Thompson and all members of his office staff for their fine assistance as the greater part of the work was done in his office.

Respectfully submitted,  
Herbert E. White, *Chairman.*

"The Committee recommends that the report of the Committee on Medical Postgraduate Course be accepted, as read." It was moved and seconded that the report be accepted. Motion prevailed.

#### REPORT OF COMMITTEE ON MEDICAL POSTGRADUATE COURSE

Since the graduate Short Course Committee reported to the House of Delegates last year, the eighth annual graduate short course was held at the George Washington Hotel, June 24-29, 1940, inclusive. In addition a graduate seminar for Negro doctors of medicine, sponsored by the Florida Medical Association and State Board of Health cooperating with the Florida Medical, Dental, and Pharmaceutical Associations, was held at Brewster Hospital June 24-26, inclusive. Thirty-eight Negro physicians were registered and 12 of these remained over to attend the general course at the George Washington.

There were 149 paid registrations at the 1940 meeting. All the faculty members who had been invited were present and carried out their parts in the program. Of the 149 doctors registered, 22 attended the special course in cardiology given by Dr. Ashton Graybiel. Five dollars of the \$20.00 assessed each man to pay for bringing the instructor in cardiology down went to the general fund. Material financial assistance was given the committee by the State Board of Health.

This committee understands that, while the Negro doctors have been invited to attend the general course



this year on the same status as the other men and it was understood by this committee that the graduate education would be given equally to both, the State Board of Health and the Florida Tuberculosis and Health Association is sponsoring a seminar for Negroes in Jacksonville this fall.

Respectfully submitted,  
T. Z. Cason, *Chairman*.

#### FINANCIAL REPORT FOR 1940

Cash on Hand January 1, 1940	\$443.23
By Registration Fees 127 @ \$5.00	\$635.00
Check No. 70 to Dr. T. Z. Cason, Stamps	10.00
" " 78 " St. Louis Button Company	18.70
" " 79 " Secretary	100.00
" " 80 " George Washington Hotel	26.20
" " 81 " Registration Clerk	25.00
" " 82 " Dr. Raymond W. McNealy	122.15
" " 83 " Dr. Stuart Michaux	50.65
" " 84 " George Washington Hotel	69.50
" " 86 " Dr. T. Z. Cason	
Faculty Expenses	3.75
" " 87 " Dr. Henry M. Thomas, Jr.	141.90
Bank Tax	1.50
	\$569.35
Balance	\$65.65
By Registration Fees 22 at \$20.00	\$440.00
Check No. 85 to Dr. Ashton Graybeil	380.00
	\$60.00
Balance	\$60.00
Cash on Hand January 1, 1941	\$568.88

Respectfully submitted,  
George C. Tillman, *Treasurer*

"The Committee has read carefully the report of the Cancer Control Committee and makes the following suggestions: that the recommendations made in their report should constitute in the future a part of the functions of this Committee and that they therefore endeavor to carry out the suggestions made therein."

There being no objections, on motion by Doctor Jones, duly seconded and carried, the recommendations contained in the report of the Committee on Cancer Control were adopted:

#### REPORT OF COMMITTEE ON CANCER CONTROL

Your Cancer Control Committee begs to report the following activities for the year 1940-41 and respectfully submits the following report:

Your committee met once in Orlando at the time of the pre-convention meeting.

Your committee realizes that the two main objectives in their work is the propagation of information through the public and to the medical profession in matters pertaining to cancer.

The education of the laity in the state of Florida is being handled very ably by the Women's Field Army of the American Society for the Control of Cancer. Your Cancer Control Committee serves as an executive committee for this body. We feel that closer cooperation of the medical profession with this group of women would be highly desirable as they have done very excellent work.

In regard to the medical profession, we feel that more active informative material should be transmitted to the doctors of Florida in cancer matters. This can be accom-

plished more effectively by an active Cancer Control Committee in each medical society; also, by effecting the organization of cancer clinics in key hospitals throughout the state cooperating with the American College of Surgeons.

With these ends in view, we respectfully submit the following recommendations:

1. The appointment, by the Cancer Control Committee, of a working committee to assist the Women's Field Army in conducting their annual cancer drive.

2. The appointment of an active Cancer Control Committee in each County Medical Society in the state.

3. The establishment of cancer or neoplastic clinics at key hospitals throughout the state.

Respectfully submitted,  
J. M. Hoffman, *Chairman*.

"The Committee recommends that the report of the Committee on Tuberculosis and Public Health be accepted."

Motion made, and seconded that the report be accepted. Motion prevailed.

#### REPORT OF COMMITTEE ON TUBERCULOSIS AND PUBLIC HEALTH

This committee has held during the year three called meetings and one meeting by mail.

Cooperating with the State Tuberculosis Sanatorium, this committee sponsored an Institute at the Sanatorium for Directors of County Health Units and other physicians engaged in public health work. The committee has also continued its interest in additional training in tuberculosis for colored physicians.

The committee has worked with a Special Committee on Tuberculosis representing the Florida Radiological Society, State Board of Health, State Department of Education, and other interested groups in the development of a plan for physical examination, including an x-ray of the chest of school personnel. As a result, sporadic efforts to x-ray school personnel have been reported from over the state with a total of 301 x-ray examinations known. It is probable other examinations have been made but are unknown to this committee. The examination of personnel of child-caring institutions under the supervision of the State Welfare Board was carried out either through facilities of Division of Tuberculosis, State Board of Health, private physicians in the community, or through the aid of interested agencies. The examinations revealed a number of active cases of tuberculosis, all of which are now under treatment.

This committee has circularized physicians of the state to ascertain those desiring Tuberculosis Abstracts as contribution of Florida Tuberculosis and Health Association. It has also approved for distribution:

1. "Chest X-ray Interpretation" to physicians.
2. Pamphlet on Tuberculosis to selected groups and general public.
3. Films on Tuberculosis now being used as part of tuberculosis information campaign of health agencies.
4. Exhibit on Tuberculosis designed for Spanish-speaking people.

The committee has worked closely with the Division of Tuberculosis, State Board of Health, State Tuberculosis Sanatorium and Florida Tuberculosis and Health Association in a consultant capacity and in an effort to interpret the work of these agencies and institution to the members of the medical profession in the state. At this time the committee is working with several groups in an effort to have an X-ray of the chest included as a part of the annual physical examination of food handlers, barbers and beauticians and those youths engaged in the program of the National Youth Administration.

The committee is also cooperating with the Selective Service Division of the state of Florida and acting as

liaison between that Service and health groups in the county in which recruits rejected for tuberculosis are returned.

Respectfully submitted,  
M. Jay Flipse, *Chairman*.

"The Committee recommends that the report of the Committee on Maternal Welfare be accepted and that a workable plan be formulated by the Committee to carry out their various recommendations successfully."

It was moved and seconded that the report be accepted. Motion prevailed.

#### REPORT OF THE COMMITTEE ON MATERNAL WELFARE

Your committee has continued its survey of maternal deaths but considerable difficulty has arisen because there is no mechanism now available to carry on a field investigation for this survey, and there are no health departments in 42 of the counties. In counties where there are health departments this work has been done by the health officer or nurse very successfully. It is the opinion of the committee that this survey could be much more successful if it were carried on by the county or district medical societies. They could request the city and county health departments and county nurses to make these investigations.

In 1940 there were 26 counties having full time health services operating 56 prenatal clinics for indigent women. These clinics gave service to 3,858 prenatals, totaling 13,153 visits; \$5,773.08 was paid to 75 physicians for services in these clinics.

The maternal death rate for 1939 was 6.4, which was the lowest yet reached in our state. The 1939 death rate for the United States, according to the latest available figures is 4.0. The total number of live births for the state in 1940 was 33,790. The total number of maternal deaths was 215 and the death rate again was 6.4. The total births for 1939 in the state were 32,437, white 22,771, colored 9,666; stillbirths 1,472, white 695, colored 777. Of the total births, 71 per cent were attended by physicians, 27 per cent by midwives, 2 per cent by others; white babies delivered by physicians 90 per cent, by midwives 8 per cent, others 2 per cent, colored infants delivered by physicians 28 per cent, midwives 70 per cent, others 2 per cent.

The outstanding causes of death are named in the order listed:

1. Puerperal albuminuria and eclampsia.
2. Puerperal septicemia and pyemia.
3. Abortion with septic conditions.
4. Puerperal hemorrhages.
5. Other toxemias of pregnancy.

This committee wishes to thank Dr. William H. Ball of the State Board of Health, its present director, Dr. Edward M. L'Engle, director of the Bureau of Vital Statistics of the State Board of Health and their associates for the continued cooperation and support given to us in connection with this work.

In conclusion the committee recommends:

1. The creation of a Maternal Welfare Committee in each county or district medical society and that this committee request the city and county health departments and county nurses to make the necessary investigations of maternal deaths which will make this survey more successful.
2. That more adequate prenatal care be given the expectant mother which will reduce the mortality rate arising especially from the toxemias of pregnancy.
3. That the establishment of stations for emergency transfusions be made available for the indigent

through the State Board of Health to reduce the mortality rate arising from puerperal hemorrhages.

4. That the act approved and endorsed by this committee, The Florida State Board of Health, and the Florida Medical Association for the prevention of congenital syphilis now before the Florida State Legislature be given the entire support of the membership of the association.

Respectfully submitted,  
Ferdinand Richards, *Chairman*

"The Committee recommends that the report of the Committee on Child Health be accepted. This Committee expresses its approval of the helpful spirit outlined in the report and recommends that they confer with the Committee on Postgraduate Course relative to a workable solution; and that they continue cooperation with the director of the Bureau of Maternal & Child Welfare."

It was moved, and seconded that the report be accepted as recommended by the Reference Committee. Motion prevailed.

#### REPORT OF COMMITTEE ON CHILD HEALTH

Many practical difficulties arise in an attempt to reduce infant mortality and to improve the standards of child care in this state. Federal, state and local governmental agencies, in cooperation with private organizations, are making a definite effort. The medical profession, as a whole, have been apathetic or lethargic in their attitude.

In order to make any real progress toward our objective, more and better care for young babies must be provided. Statistical information obtained recently indicates that much has been accomplished with the older child. Premature mortality reports show very little decrease in infant deaths during the first 24 hours of life for the past ten years.

The annual Medical Postgraduate Course, under the leadership of Dr. T. Z. Cason, chairman, has placed special emphasis upon pediatric and obstetrical training. Your Committee on Child Health feels that this is an important source of information to the physicians of the State Association in helping them to combat daily problems in practice related to the conservation of maternal and child health.

The following recommendations are presented for consideration:—

1. Establishment of local centers for diagnosis and consultation.
2. Encouragement of the general physician to attend periodic courses of the medical postgraduate pediatric education with the aid of funds provided through the Maternal and Child Health division of the State Board of Health.
3. A program aimed for the betterment of care for the premature infant. Standards can be raised by providing special postgraduate training for selected nurses and interested physicians in short intensive courses at established medical centers.
4. Pediatric consultants should be made available for various districts of the state where such a service is not now possible.
5. Appointment of various district chairmen, a portion of whose responsibility includes provision of qualified speakers for Child Health programs arranged by P. T. A. groups and the Federation of Women's Clubs.
6. Many of these proposals involve expenditure of sums of money. No moneys have been allocated to this Committee for the effective discharge of its



functions. We wish to express our appreciation to Doctor Wm. H. Ball, Director of the Bureau of Maternal and Child Welfare. His willing and helpful attitude of cooperation is making possible the actual accomplishment of some of the objectives outlined above.

Our plea is directed to the individual physician who can actively help our program in his community by active participation and by an attitude of enthusiastic cooperation.

Respectfully submitted,  
Warren W. Quillian, *Chairman*.

"The Committee recommends that the report of the Committee on Venereal Disease Control be accepted."

It was moved and seconded that the report be accepted. Motion prevailed.

#### REPORT OF COMMITTEE ON VENEREAL DISEASE CONTROL

The progress that has been made for the control of venereal diseases is very satisfactory considering the fact that the campaign has been on for so short a time.

Facilities for diagnosis and treatment have been added from time to time and are good in the large cities. The educational programs for the public in general have been good both as to quality and number of programs.

This campaign is being carried out by the State Director of Venereal Disease Control Work under the State Board of Health and your committee has never been consulted at any time in regard to this program.

In order to make the private physician as capable as possible in the diagnosis and treatment of venereal diseases, your committee has spent the past year in attempting to give them the best instructions to be had. The Committee on Medical Postgraduate Short Course gave us a lecturer on Syphilis and the course was a very entertaining and instructive one. It is hoped that we will have another short course on Venereal Diseases in the near future.

Your Chairman has enclosed a letter from the Committee on Venereal Disease Control Work in the supplements to the Venereal Disease Information, published by the United States Public Health Service and sent to each physician in the state by the State Board of Health, calling their attention to these excellent supplements and urging them to follow them in the treatment of syphilis.

E. T. Sellers, *Chairman*

Dr. F. K. Herpel, chairman of Reference Committee No. 2, Public Policy, was recognized and asked to present the recommendations of that Committee.

#### REPORT OF REFERENCE COMMITTEE NO. 2

"The Committee recommends that the resolution by Dr. W. M. Rowlett, recommending the repeal of the 1939 law concerning the appointment of committees of physicians to serve on lunacy cases, be amended by changing the word 'incarcerated' to 'hospitalized' wherever it appears in the resolution."

Amendment accepted by Dr. Rowlett. It was moved and seconded that the resolution be adopted as amended. Motion prevailed.

#### RESOLUTION

*Whereas*, in 1939 the Legislature passed a law which made it imperative for the County Judges in Florida to appoint a standing committee to serve on all lunacy cases for the period of one year; and

*Whereas*, the same law provides that each County Judge has to appoint his committee from his own county, making it so that he cannot appoint a committee of physicians in another Florida county where an insane person happens to be; and

*Whereas*, this frequently causes the sick person to have to be hauled home from the hospital in which he may be getting treatment, kept in jail for the commitment proceedings, and then transported to Chattahoochee which sometimes involves an extra mileage of three or four hundred miles of travel on a sick person; and

*Whereas*, the County Judge is prevented from appointing a committee that is well acquainted with the patient and his psychotic history but has to use his regular committee which prevents him from appointing the family physician or any psychiatrist who is available to serve.

*Be It Therefore Resolved*, that this House of Delegates endorse a repeal of this law so that the County Judges can appoint a different committee in each lunacy proceeding as was formerly the case, and when the patient is hospitalized outside of his county, he may appoint a committee in the county in which the patient is hospitalized, or held, to serve his County Court which in many instances will prevent the patient from undergoing physical trials which will be detrimental.

"The Committee recommends that the resolution by Dr. William M. Rowlett, concerning the creation of an additional hospital for the care of the insane in the central southern portion of Florida, namely in the vicinity of Avon Park, be adopted."

Dr. Van Schaick: This bill specifically calls for only curable patients, not just insane patients.

Dr. Herpel: We are still in favor of the resolution.

Dr. Ferguson: This question was discussed somewhat last year. At that time it was brought out that a number of patients are declared insane and sent on to Chattahoochee when they could have been cleared up with a short course of treatment. They would not have this stigma of insanity placed on them and it would not be necessary to go through legal proceedings to be restored to their citizenship again. These patients could be admitted to this institution for study and then if found to be permanently insane could be transferred to Chattahoochee and declared permanently insane. I am sure that something like that was brought out on discussion last year.

It was moved and seconded that the resolution by Dr. Rowlett be amended by changing the word "incarcerated" to "hospitalized." Motion prevailed. It was moved and seconded that the resolution be adopted as amended. Motion prevailed.

#### RESOLUTION

*Whereas*, there is now pending before the House of Representatives in the Florida Legislature a bill to create a new State Hospital in South Florida for the benefit of the residents of the peninsular part of the State; and



*Whereas*, the bill specifies the acceptance of an offer of land in Avon Park for the location of this hospital; and

*Whereas*, this Medical Association has previously endorsed movements for the creation of a State Hospital for the Insane in the peninsular part of the State for the benefit of the residents of southern Florida and for the purpose of having smaller units for the care of these patients; and

*Whereas*, in the opinion of the medical profession, the care of the insane is more efficiently carried out at a hospital whose population is less than three thousand patients and it is also the belief of the members of the Association that the management can be provided with more economy with a smaller unit; and

*Whereas*, the families of patients who live in the peninsula find it so difficult to visit their relatives who are hospitalized at Chattahoochee, many of which families are very poor and the trip to Chattahoochee is economically prohibitive, it would serve this class of citizens a great convenience and provide the patients with contacts with the families which would be helpful.

*Be It Therefore Resolved*, that this meeting of the House of Delegates of the Florida Medical Association go on record as endorsing this bill creating a new State Hospital at Avon Park and enthusiastically urge its passage.

"With reference to the Resolution presented by Dr. Day concerning the composition of the State Board of Medical Examiners, your Committee feels that the purpose of the resolution is sound. The committee feels, however, that the provisions contained in the second paragraph of the resolution presented by Dr. Day would not meet with the approval of the Governor of the State of Florida, who has expressed on numerous occasions his willingness to confer with members of the State Medical Association in the matter of appointment of physicians to offices under his power of appointment, but would not wish to be bound by any limited number of applicants for any appointment. We feel that the purposes of the resolution would be served by the passage of a substitute resolution, which we offer for your consideration at this time. We recommend the passage of the substitute resolution, if it meets with the approval of the introducer of the original resolution."

Dr. Day: I accept the substitute resolution.

Motion by Dr. Ferguson that the substitute resolution be amended by striking out the words "without reference to their classification as allopathic, homeopathic, or eclectic physicians." Motion seconded and carried. It was moved and seconded that the substitute resolution, as amended, be adopted. Motion prevailed.

## SUBSTITUTE RESOLUTION

*Be It Resolved*, by the House of Delegates of The Florida State Medical Association, now in session, that the Committee on Legislation and Public Policy be empowered to draw up, cause to have introduced and if possible passed, a Bill in the Legislature of The State of Florida, to amend those sections of the law governing the appointment and composition of The State Board of Medical Examiners, so that the composition of the Board of Examiners shall be made up of regularly licensed physicians in the State of Florida, who are members in good standing in the Florida State Medical Association.

"The Committee recommends that the resolution by Dr. Webb, concerning the Florida Crippled Children's Commission, be not adopted.

Dr. Herpel: Our reasons for not recommending the adoption of this resolution are: The resolution wholeheartedly endorses the activities of the present setup. All of the members do not feel that way. Again, the resolution states that we are opposed to any change whatsoever,—for the better or for the worse. The committee does not feel that this House of Delegates should go on record as being opposed to any change that may be for the better. We understand that there are other plans for crippled children in other states that might operate more satisfactorily for the children in this state. We feel that it would be a mistake for the members of the House of Delegates to endorse this resolution.

It was moved, and seconded that the resolution be not adopted. Motion prevailed.

"The Committee recommends that the report of the Committee on Medical Education and Hospitals be accepted with favorable commendation."

It was moved, and seconded that the report be adopted. Motion prevailed.

## REPORT OF COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The function of our committee is to serve in this state for the Council on Medical Education and Hospitals of the American Medical Association, and to pass on questions referred to it pertaining to hospitals and medical education.

Your committee has checked the list of hospitals, sanitariums and related institutions in Florida, which will appear in the 1941 Florida Medical Directory. The inclusion of the name of any institution may be taken as an indication that evidence concerning irregular or unsafe practices in that institution has not come to the attention of the Committee on Medical Education and Hospitals. This year there are 102 hospitals listed, as compared with 97 for the previous year. In this list of hospitals published in the Association's Medical Directory, the location of each hospital is given; its name, type of service, number of beds, number of bassinets, and the name of the superintendent.

No inquiries have been received from the A. M. A. during the year, concerning hospitals or medical education. A number of new hospitals have been completed and others enlarged. Many government hospitals are under construction, in connection with the preparedness program.

There are some small hospitals in the state that are not operating according to accepted standards of the medi-

cal profession. The names of such institutions are not included in the list published in the Medical Directory. According to the instructions laid down in the By-Laws, it is not the function of this committee to make investigations of such institutions.

Respectfully submitted,  
R. D. Ferguson, *Chairman*.

"The Committee wishes to commend the activities of the Committee on Public Relations; recommends the continuance of the activities of this committee, and recommends the acceptance of the report as submitted."

It was moved, and seconded that the report be adopted. Motion prevailed.

#### REPORT OF PUBLIC RELATIONS COMMITTEE

In the past year the Public Relations Committee has held four official meetings and numerous matters were decided by correspondence. Several inquiries regarding the policies that come within the province of this committee were answered.

A program was adopted by which each one of the members of the Committee would request the County Medical Societies in their District to furnish papers that could be dramatized. Numerous attempts were made but to date no papers have been received. One of the members has been ill and another called into the Service. This Committee was represented in the Radio Council of Florida.

The records for recording have been paid for and are in the possession of the Director of Station WRUF. These will be used for recording purposes when the material is furnished.

Respectfully submitted,  
J. Ralston Wells, *Chairman*.

"The Committee recommends the acceptance of the report of the Committee on Medical Economics, and recommends the further study during the coming year of the question of hospitalization insurance and County Health Units, as recommended by this Committee."

It was moved, and seconded that the report be adopted. Motion prevailed.

#### REPORT OF COMMITTEE ON MEDICAL INTERRELATIONSHIP

These are difficult times for an economics report whether it be for the Florida Medical Association, the American Medical Association, National or International.

Since the very recent Supreme Court decision, in which the individual Doctors were acquitted but the A. M. A. and District of Columbia Medical Society were held as having violated the Sherman Anti-Trust Act, we scarcely know where we stand in regard to any program designed to correct some vital problems in our own state medical economics situation.

Our committee feels that there are two major problems which confront us, and that these should be given more careful consideration, as to ways and means of bringing about correction. These are, namely:

1. Hospitalization Insurance including Medical Fee.
2. County Health Units.

First: A survey of the commercial insurance companies offering hospital insurance in Florida shows that they are rapidly expanding into the field of medical practice. So far as we are able to determine, all of them are offering

a so-called "medical fee" insurance policy. These policies undertake to place set values on all sorts of medical services, and we are of the opinion that the time is not far off when the same sort of lamentable relationship will exist between these insurance companies and the Doctors attending their policy holders as now exists in the field of industrial compensation insurance companies. It is evident that once commercial insurance companies write policies on a sufficiently large number of individuals, insuring them against all or part of their hospital and medical expenses, these same companies will undertake to control both the hospitals and the practice of medicine.

We, your Economic Committee, feel that further study should be made toward a solution, by an effort to introduce a statewide, non-profit, hospital insurance plan which can be kept under control of the Florida Medical Association.

Secondly: The County Health Units are in a measure a partial answer to some of the problems of bringing the facilities of the Medical Profession to greater numbers of the population under proper medical control and supervision. The present setup of these units is not the ideal. Nor will we attain these ideals until we are able to abolish our present arrangement of having our own State Board of Health a political appointment. It is desired by this committee that in the not too distant future we may accomplish the purposes of having the State Board of Health directly under the control of our State Medical Association and likewise the subsidiary County Health Units.

Your Committee, therefore, offers a Resolution that, for the ensuing year, further study and efforts be expended by the Economics Committee mainly toward solution of perfecting the more ideal situation of having a State Medical Association controlled, non-profit insurance policy and a State Board of Health, non-politically appointed.

We submit this report for your consideration and commendation.

Harrison A. Walker, *Chairman*.

"The Committee wishes to commend the work of the Committee on Inter-Relationship, and its work in furthering the harmonious relations existing between the pharmacists and physicians throughout the State of Florida, with special mention of the activities in connection with the obtaining of a Florida Formulary. The Reference Committee recommends the acceptance of the report of this Committee, with favorable commendation."

Dr. Herpel moved the adoption of the recommendation. Motion prevailed.

#### REPORT OF COMMITTEE ON INTERRELATIONSHIP

The activities in the past year have been devoted primarily to cooperation with the Florida State Pharmaceutical Association and the Florida State Board of Pharmacy under whose auspices there has been inaugurated a program of professional relations known as the Bureau of Professional Relations. This bureau is financed by the Florida State Board of Pharmacy and its direction and control is by the Board of Control of the University of Florida. It is mainly under the direction of Dr. P. A. Foote, director of the University School of Pharmacy, and is actively carried out by Mr. C. R. Jordan, associate director who is a full time employee of the Bureau, and who works with the advisory committees of the Pharmaceutical and Medical Associations. The purposes of this program are as follows:



1. To reduce self-medication
2. To reduce the cost of medication to the patient through the use of official products of the USP and NF, where possible, in place of the equivalent proprietary product.
3. To discourage the practice of counter-prescribing by the pharmacist.
4. To encourage more rational prescribing by the physician.

At our 1940 convention approval in name only was given the program of the bureau. Your chairman was directed to confer with Dr. Foote and the advisory committee of the Pharmaceutical Association as to the details of the program. In July the executive committee of the Association approved in full the Bureau of Professional Relations. At the request of the executive committee and Dr. Foote, your chairman appointed eight physicians throughout the state to help in the selection of material to be presented by the Bureau to the physicians of the state. It was the opinion of the advisory committees of both associations that a formulary be drawn up which would effectively illustrate the use of USP and NF products on prescription. Material was selected from many hospital formularies throughout the country and from the current medical literature. This material was then sent to the physicians appointed by your chairman, who edited the formulas, making deletions, corrections and suggestions as to what best might be included. Your chairman appointed the following members to edit the Florida Formulary: Dr. Gilbert Osineup, Orlando, Dr. Robert T. Spicer, Miami, Dr. William E. Duncan, Tampa, Dr. Herbert L. Bryans, Pensacola, Dr. J. H. Pound, Tallahassee, Dr. G. C. Tillman, Gainesville, Dr. George C. Overstreet, Lakeland.

I wish to express my appreciation for the work done by these men on the Florida Formulary. The material selected was voluminous and required careful consideration as to correct dosage, therapeutic indication, counter-indications, etc.

Two thousand copies of the Accepted Florida Formulary were printed. The formulary appears as a small steel filing box, filled with illustrative prescriptions on 3x5 file cards. Through the cooperation of Dr. Thompson and your chairman it was suggested that the seal of the Medical Association be placed as an insignia on the outside of the file box. Each member of the Association will receive without charge an accepted Florida Formulary. Formularies will be presented also, as reference material, to each drug store in the state. In October your chairman appeared before the Northeast Florida Pharmaceutical Association in Jacksonville to discuss with them further the program and formulary.

Arrangements were made for Mr. Jordan, Associate Director, to appear at the various county medical meetings to present the purpose of the program before those groups. Each month the Bureau of Professional Relations will issue bulletins calling attention to some of the newer products of the USP and NF developed in hospitals or reported in the current medical literature. Your chairman also made arrangements through Dr. Thompson for the Bureau to exhibit at this convention.

Mr. Jordan has contacted over 350 physicians and as many drug stores have been contacted to date. He is appearing before various meetings of the district Pharmaceutical Associations, and their state convention, as well as writing a series of articles appearing each month in the Journal of the Florida Pharmaceutical Association. In working with the Pharmaceutical Association problems of cost of prescriptions and counter-prescribing are approached.

Also it might be mentioned that Dr. Myers and your chairman were appointed as delegates of the Florida Medical Association and attended the Decennial Convention of the United States Pharmacopeial Convention in Washington, D. C. in May, 1940. At this convention the decennial revision of the U.S.P. was discussed by the physicians, pharmacists, and chemists present.

Programs of professional relations are receiving attention from almost every state in the United States. In February the Professional Relations Committee of the American Pharmaceutical Association met with the Executive Committee of the American Medical Association to discuss problems of mutual interest. Florida, at present, has the most ambitious program of any state. It is the hope of your chairman that such efforts toward better professional relations between the professions of medicine and pharmacy in Florida will be the successful example for other states to follow.

The promotion of scientific prescribing and dispensing will increase confidence in medicine and in pharmacy and is unquestionably the best method of attacking pseudo-scientific and fanatical cultists who oppose medical progress.

Your committee wishes to thank the officers of the State Medical Association and other men who have helped us put over this program, and particularly wants to thank The Pharmaceutical Association, The Florida Board of Pharmacy, and the University of Florida School of Pharmacy for initiating such a program to which we could give support.

Respectfully submitted,

E. C. Swift, *Chairman*.

"The Committee commends the excellent activity of the members of the Committee on State Controlled Medical Institutions during the past year and their evident thoroughness in surveying these institutions and endeavoring to ascertain the present status and needs of the institutions mentioned in the report. The Reference Committee recommends the adoption of the recommendations contained in the report and the acceptance of the report of the committee with commendation."

It was moved and seconded that the report be adopted. Motion prevailed.

#### REPORT OF COMMITTEE ON STATE CONTROLLED MEDICAL INSTITUTIONS

In compiling information of the various medically controlled State institutions it is gratifying to learn that so far as the medical staffs are concerned, these institutions are well equipped in quality. However, in some of them there is need for additional chairs of medicine.

With regard to location of these State institutions the responsible parties are certainly to be commended in having had foresight enough to secure necessary adjacent grounds that will take care of any ordinary expansion for several generations to come.

The tuberculosis sanatorium at Orlando is one of our newest institutions. The Medical Director, Dr. R. D. Thompson, is rendering a nice service. The building contains 400 beds, 300 beds for white patients and 100 beds for Negroes. There is a great need for more beds particularly for Negroes. A special unit of 200 beds for Negroes, leaving the 400 beds for white patients should be recommended.

Being a new institution, there are other fundamental needs such as an addition to the nurses' home to accommodate 20 nurses, also three additional homes for members of the medical staff.

This institution owns 160 acres of land of which about 20 acres are being occupied by the present buildings, leaving 140 acres for expansion. There appears to be adequate sleeping quarters for those admitted, about 650 cubic feet per patient; 600 is the usual accepted minimum amount.



It should be recommended that efforts be lent toward increasing the size of this institution, so as to take care of more early cases which can be cured and consequently reducing the number of late cases which too often can only be benefited.

The Florida Farm Colony for the feeble-minded and epileptics, located at Gainesville under the conscientious management of Dr. J. Maxey Dell, is rendering a noble service to society. In 1940, there were 1,750 patients admitted for hospital care. The housing space is inadequate, the cubic feet per patient being about one-half the required amount. Remodeling and new buildings should be recommended. This institution owns 3,000 acres of land of which over 500 are under cultivation.

The Florida State Hospital is the oldest institution mentioned in this report. For the past 30 years, there has been a marked improvement in the medical staff; it has stepped up from a staff of one to the present staff of sixteen. This is an enormous institution and is efficiently managed by the Superintendent, Dr. J. H. Therrell. There is a real effort on the part of the staff to make a diagnosis in each case, but to do this successfully, more physicians, psychiatrists, neurologists, nurses and attendants are needed.

In the year 1940 there were 5,434 patients treated. The average cubic feet in sleeping quarters is about 500. More modern fire-proof buildings should be recommended; the overcrowded condition appears to increase from year to year. If like begets like, sterilization certainly would be of great aid in reducing the ever increasing number of insane. To take care of any expansion program the institution might have in mind, the 10,208 acres it owns is ample.

The Florida Industrial School for boys is under the management of Millard Davidson, who is outstanding and particularly trained for this kind of work; he has made wonderful improvements in this institution during the past eleven years. He has surrounded himself with a personnel of the highest type, all feeling the responsibility that rests on them in trying to mould the unusual amount of energy in these wayward juveniles towards Citizenship.

The supervised recreation and excellent diet keep these 440 boys a healthy, happy-looking lot. The one thing that keeps the institution from making an all-out good impression is the restricted space for sleeping quarters. The beds are pushed flush with each other, making it necessary for the boys to climb over head and foot to get in and out. The moral hazard of this condition is too obvious to mention and should be remedied.

The health of these boys is looked after by one part-time Doctor which appears to be sufficient. The average cubic feet of sleeping space per boy is about 250. More sleeping space should be recommended with access to 1,350 acres of land. The school is partly self-sustaining.

Respectfully submitted,  
Daniel A. McKinnon, *Chairman*.

"The Committee wishes to commend the activities of the Advisory Committee to the Woman's Auxiliary during the past year under the chairmanship of Dr. Gordon H. Ira, and recommends the acceptance of the report of this Committee."

It was moved and seconded that the report be adopted. Motion prevailed.

#### REPORT OF ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

A meeting of the members of the Advisory Committee, attended by Dr. J. Sam Turberville, president of the State Association, and the president of the Woman's Auxiliary and her Board was held October 3, 1940 at Daytona Beach. At this time plans for the year were discussed and the

following charges adopted. These charges, together with a copy of the A.M.A. platform and the legislative program of the National Auxiliary, were later sent by Dr. Turberville to the president of each County Auxiliary.

#### CHARGES

1. Endeavor to have all your members subscribe to and read the *Bulletin*.
2. Familiarize each member with the A. M. A. platform.
3. Follow the recommended Auxiliary 1940-41 program.
4. Continue diligently to distribute the magazine *Hygeia*.
5. Secure A.M.A. broadcasts over your local station and urge the schools of your county to permit the pupils to listen and make use of them in their science classes.
6. Hold yourself in readiness to cooperate 100 per cent with the chairman of the legislative committee.
7. Hold a fourth annual Health Institute Day.
8. Cooperate with the Tuberculosis Association, particularly in the Christmas seal sale.
9. Cooperate with the Cancer Field Army.
10. Prepare an interesting exhibit for the State Medical Meeting.
11. Secure and prepare an essay on historical Public Health data with particular reference to beginning of Public Health work in your county.
12. Stress organization chairman's duties this year. Mrs. F. W. Krueger, 1055 Arbor Lane, Jacksonville, is state chairman this year.

Respectfully submitted,  
Gordon H. Ira, *Chairman*.

"The Committee recommends the continuance of the work of the representatives to the Industrial Council during the coming year. The Committee also commends the activity of the members of this Committee, and recommends the acceptance of the report of the Committee. Especial attention is called to the last paragraph in the report."

It was moved and seconded that the report be adopted. Motion prevailed.

#### REPORT OF THE COMMITTEE AS REPRESENTATIVES TO THE INDUSTRIAL COUNCIL

Our committee has not had a formal meeting this year but your chairman has personally communicated with each member of the committee. He has personally interviewed the various chairmen of the Industrial Commission from the time of its origin to the present date. We find that it has been the policy of these gentlemen to be very desirous of cooperating with our profession. There has been no grievances referred to our committee by any member of the profession or the Industrial Commission.

There is some legislation that has been introduced during this present session at Tallahassee that will more specifically define the amount of compensation and the limitations of periods of disability as a criterion to go by. This is included in House Bill 116 and this bill is sponsored by the Florida Industrial Commission and will no doubt be advantageous to all concerned. Another bill, House Bill 189, affecting the Commission is apparently a worthless bill as it would have a tendency to encourage unnecessary litigation and at the same time take away some of the duties of the Commission in their endeavor to see that the carrier, insuree and employee alike have a fair deal. The present chairman of the Industrial Commission, in a personal communication over the telephone, said he is very

desirous of giving us his full cooperation and also wishes suggestive criticism.

We would strongly suggest that the sums allotted for exceptional injuries such as may be encountered in a fractured spine or hip, necessitating long periods of hospitalization and treatment, be adequately raised to compensate fully for medical and hospital care.

Respectfully submitted,

J. C. Davis, *Chairman*.

Dr. Shaler Richardson, chairman of Reference Committee No. 3, Finance and Administration, was recognized and asked to present the recommendations of that committee.

#### REPORT OF REFERENCE COMMITTEE NO. 3

"The Committee is impressed with the fact that the resolution presented by Dr. H. A. Day, to create an executive legislative committee, is fully covered by Section 4 of the By-laws creating and outlining the duties of the Committee on Legislation and Public Policy, and furthermore that the creation of such a committee would necessitate a change in the By-laws. It is the recommendation of the committee that if a lay secretary for the already created Committee on Legislation and Public Policy is necessary the President and Executive Committee in collaboration with the Committee on Legislation and Public Policy are empowered to employ one. For the above reasons it is unanimously recommended that the resolution be rejected."

Moved that the resolution be not adopted. Motion seconded. Motion prevailed.

"The Committee recommends that slight changes be made in the resolution by Dr. Homer Pearson relative to the omission of dues for members in military service. The resolution is amended to read:

#### RESOLUTION

*Whereas*, Many of our members are being called into active military service; and

*Whereas*, A comparatively large number of these men are in the younger group and therefore may be financially embarrassed; and

*Whereas*, These men are making a great sacrifice in leaving their practice and devoting a period of time and service to our country; and

*Whereas*, In so doing they are relieving many of us of such sacrifice; and

*Whereas*, There is little doubt but that the removing of these men from their homes and practices and putting them on the government payrolls with less incentive to do hard work and with not too cheerful an outlook for the future return to private practice, definitely will place these men in a more receptive mood for Socialized Medicine; and

*Whereas*, It is to the great advantage of Organized Medicine to keep these men actively within its ranks and not to let them feel that our interest for them has ceased

simply because they are no longer within our midst, and

*Whereas*, These men should be acquainted with the fact that we appreciate what they are doing for us and our Country and that the fact should be made known to them in a vigorous and material way; and

*Whereas*, The material loss to the Florida Medical Association is nothing as compared to the great sacrifice made by these men.

*Be It Therefore Resolved*, That the name of every member of the Florida Medical Association in active military service during the present emergency be carried on the rolls of this Association as an active member without the payment of dues during his term of active military service, if he is not carrying on any private practice, provided that the County Society to which he belongs omits his dues for the same period. It is understood that the Journal of the Florida Medical Association is not to be mailed to these members unless the subscription price is paid by the member. It is further understood that the Secretary of the County Society is to furnish a certified roster of those members in active military service and that it is incumbent on the County Society Secretary to keep this record current and inform the Secretary of the Association without delay. This Resolution to take effect January 1st, 1942."

Dr. Richardson moved the adoption of the resolution. Motion seconded.

#### DISCUSSION

Dr. Hendricks: How much does it actually cost to have the Journal mailed out?

Dr. Richardson: It costs more than the subscription price.

Dr. Hendricks: I feel that the intent of this resolution is more or less nullified, unless the men be kept posted on the things back home through the Journal. I feel that the mailing of the Journal is as important a factor in helping these men to keep up with things at home as anything else we can do. For that reason I would like to delete that portion of the resolution.

Dr. Owens: I think it was Dr. Pearson's intention that these men not only be carried on our rolls but be considered active members. As active members they should receive the Journal of the Florida Medical Association. I don't know the procedure by which we could move the deletion of that paragraph or that part of the paragraph from the resolution.

Dr. Richardson: Dr. Homer Pearson is a member of this Reference Committee and he agreed, after discussing the financial phase of it, that the men in military service should subscribe to the Journal. Another important reason for that is that when these men go into military service they go first to one camp and then to another camp, and probably subsequently may be sent to still another camp. Many of them will not send in their addresses to the Journal office, and their Journals will be mailed to them and probably never reach them. Another point is in the omission of these dues, the Association's treasury is going to face a large financial loss. Our income for the year will be greatly reduced, and it was with this thought in mind that the Committee unanimously approved the idea of not mailing the Journal to the members who were in military service.

Dr. Flipse: I concur with the remarks of the previous speaker who believed that these men should receive their Journals. I also believe that the State Association should not be the only organization to suffer loss, but that the County Societies also omit the payment of dues for these men. I believe that the failure to send the Journal to these men without their paying for it will nullify the purpose of the resolution. And I therefore wish that the words pertaining to that be stricken from the resolution and that these men be retained in full membership including subscription to the Journal.

I submit that as an amendment to the resolution.

Amendment seconded.



Dr. Flipse: One more point, the question as to the time when this shall apply. I think it should be 1941 instead of 1942 because the men who have already been called into service will not be included. The men called into service in 1941 will be dropped from the roster. I do not believe that these men should be penalized because of the time they were inducted into active service. I therefore submit a substitute amendment, that the date 1942 be restored to 1941.

Substitute Amendment seconded.

Dr. Wells: Did Dr. Flipse mean that the dues paid for 1941 will be reimbursed?

Dr. Turberville: This would have to go back to the committee for change.

Dr. Flipse: It is the privilege of a member of the House of Delegates to submit an amendment to a resolution. It has never been denied in previous parliamentary procedure.

Dr. Day: I agree entirely with the Committee. We doctors want to be free and independent. We feel that it is an insult to the integrity of a doctor to accept anything gratis. For that reason I think that the Journal should be subscribed to. It will not work a hardship on any officer, and all physicians are officers. It would be an insult to the doctor to give him the Journal gratis. We doctors don't want that.

Dr. Richardson: A large portion of these dues for 1941 are fortunately already paid into the Association and the budget for the first part of the year has already been set up. It is difficult to rearrange our budget and go into the treasury to pay back these dues, unless we want to take it out of the assets of the Association. This matter was deliberated at some length by the Committee, and it was discussed in detail by Dr. Pearson who first presented the resolution, and it was the consensus after full deliberations that it would be better to omit the dues as of 1942 and not mail the Journal unless subscribed for.

Question from the floor: What is the price of the Journal?

Dr. Richardson: Three dollars, less than the actual cost.

Question: If the substitute is adopted will that mean that the men will be carried on as active members and retain their membership in the A.M.A.

Dr. Richardson: This resolution specifies that they are to be carried on the roster as active members. No distinction is made between the man who pays his dues as you will, and the man who is in the military service and does not pay his dues. They are to be carried on the roster as active members for the period of the present emergency.

Dr. Davis: Why not let the County Societies pay these dues and the State Association send the Journal complimentary?

Dr. Gurganious: The question is, can the Association stand it? If they cannot, it is up to the individuals. I do not believe that the Florida Medical Association can stand it financially.

Dr. Flipse: I withdraw my substitute amendment.

Dr. Turberville: I think that the whole thing is impractical. We have had this thing up before. We had it up before the other world war. We were going to take care of the men's patients while they were away. I took the position then that it was not practical. If you want to help these men it would be more practical for the individual societies to do it. But I don't think that it will work either way. I believe it is one of those impractical well meant gestures, that we are all heartily in favor of helping these men but I don't think we can carry it out. The many different propositions brought out will show you that it is impractical.

Dr. Flipse: I move to strike out from the resolution those words which limit the active membership by compelling the men to pay for their own Journals, and I move to alter the word '1942' to '1941'. The effect of this amendment will be to carry these men in full membership as though they had paid their dues, and that it be active as of 1941 instead of 1942. Motion Seconded.

The chair called for a rising vote on the first part of Dr. Flipse's amendment. With fifteen votes in favor and twenty-five opposed, the motion was lost.

Motion by Dr. Owens that Dr. Flipse's motion be declared out of order because it is retroactive. Seconded and carried.

Motion to adopt the resolution as read by Dr. Richardson, prevailed.

"The Committee recommended that the report of Council be approved for publication." Doctor Richardson moved for the adoption of the recommendation. Motion prevailed.

### REPORT OF THE COUNCIL

One of the major activities of the Council is to arrange for a medical meeting in each of the six districts. This is the fourth year that these medical district meetings have been held and the councilors feel that each year there has been an improvement in the carrying out of the plans for the meetings, that has definitely added to the interest and benefit derived by the Association members and their guests who have attended.

The importance to our membership of these medical district meetings cannot be overrated. They afford an opportunity in a smaller group meeting for freer discussions, personal contacts and wholesome fellowship. They afford also an opportunity for individual members to present papers and have them published in the Journal, which is important as the scientific program at our annual state convention is limited to the number of papers that can be presented. There were nineteen excellent papers presented from our membership at the district meetings. Those who attended the scientific programs will agree that the papers were well presented, interesting and educational. The prolonged discussions which followed the presentation of the papers is evidence of their value. In order to discover valuable talent in a large membership, opportunities must be afforded for the presentation of scientific papers.

This year the Council tried a new experiment which we think added to the importance and value of the meetings. At each district meeting a guest essayist was invited from the membership in some other district. The six guest essayists appearing on this year's programs were: Dr. W. H. McCullagh of Jacksonville at Pensacola, Dr. C. C. Rudolph of St. Petersburg at Lake City, Dr. J. W. Snyder of Miami at Daytona Beach, Dr. R. B. Harkness of Lake City at Dunedin, Dr. J. S. Stewart of Miami at Ft. Pierce, and Dr. J. R. Boling of Tampa at Coral Gables. While the selection of all essayists is confined to the membership of our Association, the bringing in of a guest essayist by invitation from another part of the state adds to the interest of the program and encourages the essayist to put his best into the preparation of his paper.

Another departure from the usual routine was the holding of the district meetings in two series of three meetings each, on successive days, in place of the usual one at a time, from the middle of September to the early part of November. The first series was held on Thursday, Friday and Saturday, October 3, 4, and 5; and the second series on Thursday, Friday and Saturday, October 31 and November 1 and 2.

Before the inauguration of these medical district meetings our president was invited throughout the year, to visit county medical societies. To accept even the majority of the invitations he was required to travel across the state and back many times during the year, which not only was expensive but kept him from his regular practice. There were also many societies which the president



could not visit. The six separate medical district meeting dates were an improvement over the old system and afforded the president and other officers an opportunity to meet the membership of the entire state at a definite conservation of expenses and time. The innovation has proved to be unanimously accepted as a still further improvement in that the president and officers are required to make only two trips from home during the year and accomplish as much as if the six separate trips were made. The last meeting of each of the two series was held on Saturday, so there were Saturday night and Sunday to return home.

After receiving the unanimous endorsement of those attending the district meetings, your Council has set the dates for the meetings this fall in two series; the first, Thursday, October 2 in Tallahassee; Friday in Gainesville, and Saturday in St. Augustine. The second series is scheduled for Thursday, October 30 in Ft. Lauderdale, Friday in Bartow, and Saturday in Orlando.

Complete writeups of the district meetings held last fall were published in the November and December Journals. The value of annual medical district meetings is emphasized in a study of attendance. The number of our members attending the state convention was 522, as compared with a total at the district meetings of 349. A larger portion of our membership attended the state meeting. A review of the attendance at each of the district meetings reveals that the members from the larger cities attend the state meeting in greater numbers than do the members from the rural districts.

Geographically the North Central District (B) is exceptionally large but the membership is smaller than in any of the other five. District B, however, had 30.6% of its membership in attendance at the district meeting, representing the largest percentage of any district for the year. This meeting was held in Lake City which is located in the extreme northern portion of the district.

The Northwest District (A) ranked second with 26.7%. This meeting was held in Pensacola which is at the extreme western border of the district and approximately 240 miles from the eastern boundary.

The Southeast District (F) ranked third with 20%; the Southwest District (D) ranked fourth with 19.9%; the South Central District (E) ranked fifth with 17.7%; and the Northeast District (C) ranked sixth with 17.6%.

The membership attendance at medical district meetings shows a larger proportion from those districts where there are fewer members, even though the districts are geographically large and longer travel is required. In the districts with larger membership, which are smaller geographically, the proportion of attendance is smaller. The medical district meetings are, therefore, of particular value to our members in rural districts and smaller cities.

I wish to express deep appreciation to the eleven councilors who so ably assisted in making these district meetings a success; also to the essayists who prepared and presented such excellent papers, and to the officers and members of the county medical societies who acted as hosts for the district meetings. Your twelve councilors have functioned throughout the year in their separate districts and a record of their activities as individual councilors may be found in the reports read at the Pre-Convention Meeting in Orlando, January 19, and published in subsequent Journals.

Respectfully submitted,

Robert B. McIver, *Chairman.*

"The Committee recommends that the following report of the Florida Committee on Medical Preparedness be approved for publication." Doctor Richardson moved for adoption of the recommendation. Motion prevailed.

## REPORT OF THE FLORIDA COMMITTEE ON MEDICAL PREPAREDNESS

During the summer of 1940, in response to a request from the national military services for cooperation in creating an adequate national defense, the American Medical Association through the Committee on Medical Preparedness asked the state medical associations to organize the doctors in order that they might function with the other agencies of national defense. Your president immediately appointed a chairman for Florida, one of whose duties as specified by the American Medical Association was to organize a state committee on medical preparedness to be composed of the president and secretary of the state medical society, the state chairman for the Committee on Medical Preparedness and ex officio the members of the Committee on Medical Preparedness of the American Medical Association within whose corps the state is located and such other members as this group might select. Your state chairman attended a meeting in Chicago on September 20, 1940, at which representatives of the Army and Navy met with the chairmen of the state committees for the purpose of general discussion and working out of plans of action.

Immediately following this meeting, your state committee requested each component county society to appoint a county committee on medical preparedness. After a unanimous response from the county medical societies, the state set-up consisting of a state committee and a committee from each component county society was promptly established. The names of the chairmen and members of the county committees appointed by the component county societies were published in the October, 1940 Journal of the Florida Medical Association.

In carrying out the provisions of the Selective Service Act, it became the duty of the Governor of Florida to recommend to the President of the United States for his appointment doctors to serve on the local boards, medical advisory boards and boards of appeal. Each county committee on medical preparedness sent to the state committee a list of recommendations for the local boards. These lists were then forwarded to the State Director of Selective Service, who selected from them the doctors whom he recommended to the Governor. The state committee recommended doctors to serve on the medical advisory boards, one for each of the five congressional districts and also physicians for the boards of appeal, likewise five in number.

The county committees have been active in urging the doctors to answer the questionnaires sent by the American Medical Association. They have collected and returned to the state committee information concerning the necessity for certain doctors in their respective communities to remain at home and gave reasons for their being ineligible for military service. At the request of Dr. James E. Paullin, the member of the National Committee on Medical Preparedness representing the corps area in which Florida is located, specific information concerning each man in the Medical Reserve Corps was collected by the county committees and forwarded to the Area Headquarters.

It is obvious that the greatest and most difficult part of the work has been done by the county committees. The state committee has functioned largely as a coordinating unit and made recommendations to the Area Headquarters on county problems from information sent in by county committees. It has been further a coordinating agency between the dentists and has worked with some of the special medical groups such as roentgenologists in an attempt to relate their activities to the general work of the National Committee on Medical Preparedness.

It is the desire of the state committee to make every effort to help with personal and community problems. Although we have failed to secure the granting of several requests from members of the Florida Medical Association, we can assure you that to the best of our ability we have striven to obtain what has been desired.

The state committee wants to emphasize that what has been accomplished is due to the energetic cooperation of all the doctors of Florida, the activities of the county committees and the central business office of the Association. We heartily thank all of you for your cooperation.

Edward Jelks, *Chairman*.

"The Committee recommends that the report of the Executive Committee be approved for publication." Doctor Richardson moved for adoption of the recommendation. Motion prevailed.

#### REPORT OF EXECUTIVE COMMITTEE

Three official meetings of the Executive Committee were held during the fiscal year. The first meeting of the Committee was held in Tampa, Wednesday, May 1 at 1:20 p. m. A suggested working budget for the ensuing year was presented by Dr. Shaler Richardson, the secretary. The usual operating expense items were listed, including postage and supplies, printing of the Journal and Medical Directory, telephone and telegraph expense, salaries, convention expense, office rental, committee expense, etc. Each item of the budget and the amount suggested were read by the secretary. After a general discussion, during which a number of the items were explained to the Committee, the budget was adopted. A complete report of all expenditures will be included in the annual report of the treasurer, which will be read at the First General Session this afternoon, and published in detail in the June, 1941 Journal.

Dr. Samuel A. Shoemaker of Orlando was elected an honorary member, on recommendation of the Orange County Medical Society.

The Association's secretary was requested to write a letter to the secretary of each county medical society, explaining the service made available by the Bureau of Drug and Narcotics of the State Board of Health, in connection with the prosecution of irregular practitioners.

At the second meeting of the Executive Committee, held in Jacksonville Sunday, July 7, Dr. P. A. Foote, Director of the School of Pharmacy of the University of Florida, and Dr. J. K. Attwood explained the educational program undertaken by the Bureau of Professional Relations. The plan as outlined in general was approved with the understanding that the details would be worked out jointly by the Association's Committee on Inter-Relationship and the Bureau of Professional Relations. The use of the name of the Florida Medical Association on the printed formulary cards was approved.

On recommendation of the Broward County Medical Society, Dr. John A. Stanford of Ft. Lauderdale was voted Honorary Membership.

The official dates for the Association's annual meeting in Jacksonville were set for April 28, 29 and 30, 1941. The schedule of sessions for the 1941 annual meeting was approved as printed in the official program. After a lengthy discussion, the members of the Executive Committee decided that, after the 1941 convention, members of the entertaining society for annual conventions should not be assessed for funds to defray entertainment expenses.

Action of the House of Delegates (page 616 of the June, 1940 Journal) concerning the possibility of eliminating the reading of committee reports at the first meeting of the House of Delegates was referred to the Executive Committee. After a lengthy discussion, it was decided that it would be unwise to change the By-Laws in this respect, as a committee which had worked throughout the year and had prepared an annual report should be heard by the entire House of Delegates.

Action of the House of Delegates (page 608 of the June, 1940 Journal) concerning the publication in booklet form of a five-year survey of maternal deaths, as recommended by the Committee on Maternal Welfare, was referred to the Executive Committee. Your Committee, in turn, re-

ferred this to Dr. Richardson with the suggestion that, if possible, the State Board of Health appropriate the necessary funds to defray printing costs.

Action of the House of Delegates (page 605 of the June, 1940 Journal) concerning an invitation to the South-eastern Surgical Association to hold its 1942 convention in Miami, was referred to the Executive Committee. The resolution introduced by Dr. J. S. Stewart was approved and the Association's secretary requested to transmit a copy of the resolution to the proper officer of the South-eastern Surgical Association.

Action of the House of Delegates, (page 610 of the June, 1940 Journal) concerning an appropriation of not less than \$250.00 and not more than \$350.00 for the use of the Committee on Public Relations in securing permanent records of broadcasts was referred to the Executive Committee. It was decided to wait until the Public Relations Committee had spent the \$150.00 already available and, if additional money is needed the matter again to be considered when presented.

The third meeting of the Committee was held in Orlando, Sunday, January 19. The invitation of the Palm Beach County Medical Society to hold the State Association's 1942 convention in Palm Beach was accepted for recommendation to the House of Delegates.

The question of the payment of dues by members called into military service was discussed. Your Committee recommended that the state dues be paid by the county medical societies for their members while in military service and that the secretary of the State Association write to the secretary of each county medical society, transmitting this information.

On recommendation of the Association's Committee on Legislation and Public Policy, Mr. Francis P. Whitehair of the firm of Hull, Landis and Whitehair of DeLand, was retained as one of the Association's attorneys to handle any and all legal matters of our Association that may be intrusted to him during the calendar year 1941.

Mr. Perry L. Harrison, chief underwriter of the Aetna Casualty and Surety Company of Atlanta, advised that the income from premiums on the master policy did not amount to as much as the company was required to pay out. After studying the matter for several months, your Committee agreed to accept an increase in the premium on the basis of the past five years' experience. The Association's secretary was instructed to write a letter to the secretary of each county medical society and Mr. Harrison was also requested to write to the secretary of each county medical society, relative to the increase.

At the request of Mr. Charles G. Lavin, State Youth Administrator, his appointment of a part-time physician to serve as NYA state health consultant, was approved.

The chairman of the Executive Committee was requested to write a letter to the Governor of Florida, asking that, in the event he had occasion to appoint a state health officer, this Committee requested his consideration for the office, of Dr. Henry Hanson and Dr. W. H. Pickett, provided these two doctors were approved by the members of the State Board of Health.

Your Committee makes the following recommendation:

1. That the Association's 1942 annual convention be held in Palm Beach.

Respectfully submitted,

Gilbert S. Osincup, *Chairman*.

Doctor Richardson moved for the adoption of the Executive Committee's recommendation that the 1942 Annual Meeting be held in Palm Beach. Motion prevailed.

Motion by Doctor Chappell that Dr. T. Z. Cason be granted three minutes' time to discuss the National Youth Administration. Motion seconded and carried. Dr. Cason spoke briefly



concerning the local organization and his appointment as Counselor.

Dr. Turberville: I am sure that what Dr. Cason is doing has the approval of the Executive Committee, the properly constituted authority when the Association is out of session.

Doctor Richardson moved the nomination of Dr. J. Harris Pierpont of Pensacola and Dr. Peter T. Skaggs of Miami for Affiliate Fellowship in the American Medical Association. Nomination seconded and unanimously adopted.

On motion duly made, seconded and carried, the meeting of the House of Delegates adjourned.

#### FOURTH SCIENTIFIC ASSEMBLY

The Fourth Scientific Assembly was held Wednesday, April 30, at 9:00 a. m., Dr. Herbert E. White presiding.

The following papers were read and discussed:

11. "Fallacious Views Concerning Rhinologic Surgery, and Factors Influencing More Successful Results," A. R. Hollender, Miami Beach.
12. The paper by Dr. Ira was not presented owing to his inability to attend.
13. "The Use of Quinidine Sulfate in the Treatment of Auricular Fibrillation" (Lantern Slides), Louie Limbaugh, Jacksonville.
14. "The Public Health Laboratory and the Private Practitioner," James N. Patterson, Jacksonville.
15. Clinicopathologic Conference, Franz Stewart, Director, Miami; L. Y. Dyrenforth, Pathologist, Jacksonville.

#### THIRD GENERAL SESSION

The General Session of the Florida Medical Association reconvened at 12:05 p. m., Wednesday, April 30, 1941 in the Ballroom of the Roosevelt Hotel, President Turberville in the chair.

The meeting was called to order. There being no unfinished or new business, the meeting proceeded to the election of officers.

Dr. Gilbert S. Osincup of Orlando was nominated for president-elect by Dr. Edward Jelks. The nomination was seconded by Dr. Harrison Walker. Dr. Eugene G. Peek of Ocala was nominated by Dr. J. C. Davis. Nomination

seconded by Drs. B. H. Goodale, R. D. Ferguson and J. C. Vinson. Motion to close nominations seconded and carried. Dr. Turberville appointed Drs. W. McL. Shaw, W. C. Thomas and L. J. Netto to act as tellers. On ballot vote sixty-five (65) votes were cast for Dr. Osincup and fifty-one (51) for Dr. Peek. Dr. Peek moved that a unanimous vote for Dr. Osincup be declared. Motion seconded and carried. The chair then announced that Dr. Osincup had been unanimously elected president-elect for the coming year, and appointed Dr. F. K. Herpel and Dr. Edward Jelks to escort Dr. Osincup to the rostrum.

Dr. Osincup: Members of the Florida Medical Association: I am a little too full of emotion at the moment to say very much. I assure you that I appreciate Dr. Peek's gesture in making this unanimous because I feel that the Florida Medical Association for the past number of years has been and we know will continue to be, the best state medical association in the United States—I firmly believe that—and we need complete unanimity. I am sure that we are going to have it as we have for the past few years.

I regret that I cannot express my appreciation more eloquently. I thank you.

Nominations for first vice-president were called for. Dr. Luther W. Holloway of Jacksonville was nominated by Dr. R. B. McIver. Nomination seconded by Dr. S. R. Norris. Doctor Vinson moved that nominations close and that the secretary cast a unanimous ballot for Doctor Holloway. Motion prevailed.

Nominations for the office of second vice-president were called for. Dr. Frederick K. Herpel of West Palm Beach was nominated by Dr. Barge. Dr. Holden moved that nominations close and that the secretary cast a unanimous ballot for Dr. Herpel. Motion prevailed.

Nominations for the office of third vice-president were called for. Dr. W. C. Payne of Pensacola was nominated by Dr. Van Schaick. A motion was made that the nominations close and that the secretary cast a unanimous vote for Dr. Payne. Motion prevailed.

Nominations for the offices of secretary, treasurer and editor of the Journal were called for. Dr. Shaler Richardson of Jacksonville was nominated by Dr. J. R. Chappell. It was moved that the nominations close and that a unanimous ballot be cast for Dr. Richardson. Motion prevailed.

The chair requested Dr. Davis and Dr. Payne to escort Dr. Walter C. Jones to the rostrum.



Doctor Turberville: Doctor Jones, it is with the utmost pleasure that I pass on the gavel to you.

Doctor Jones: Members of the Florida Medical Association: I will relieve you to begin with for I have no speech to make today.

I want to say that I come here with the greatest feeling of humility. I don't know that I have ever felt the lack of ability to take over a job such as this as much as I feel it today. I know that I must have your cooperation in order to accomplish anything for organized medicine in our State during the coming year. I know that I have your good will and I appreciate that more than I can say. I will call on you from time to time during the year to help decide the various problems that may arise in the administration of this organization.

I think that you will be interested in the committee appointments for the coming year. I will not bore you with details of the various committees but I think that the chairmen of the committees certainly would be of interest to the general session. (*Please refer to page 622 for appointments*).

The chair recognized Dr. Ralph N. Greene, chairman of the Advisory Board of Past Presidents, who presented to the outgoing president, Dr. J. Sam Turberville, the emblem button worn by past presidents.

Doctor Greene:

It now becomes my privilege to speak officially in behalf of the Florida Medical Association, for the purpose of presenting to you the Past-President's button. I entertain a personal sentiment about the Past-President's button for it was upon my recommendation, many years ago, that the Past-President's button was brought into being. This button, a high development of the jeweler's art, is presented to you, not because of its intrinsic value, but because it symbolizes your having been honored by your fellow members with the most distinctive recognition within their power to grant. You will note that the Past-President's button is a combination of gold, green and white. Those who designed this button had in mind symbolizing Florida by using the golden color of the citrus fruit, the green of its perennial leaves, and the white of its blossoms. It may be said, also, that the gold, which enters into the composition of this button, symbolizes the sterling service you have rendered to organized medicine and to the people with whom you live. Everyone who knows you will doubtless agree that the white background represents your unblemished personal and professional career.

Every member of this Association knows the circumstances under which you have worked as a doctor. We realize the difficulties you must have encountered in ministering to the sick in a community formerly devoid of hospitals and other needed equipment and how greatly your ingenuity and resourcefulness must have been frequently taxed in order that you could so adequately meet the exigencies of the occasions under conditions of isolation from consultations, assistance and advice.

The green, which is prominently displayed in the Past-President's button, may be said to symbolize the chlorophyll of life which you have so successfully given your patients in a fine effort to assuage suffering, increase longevity and conserve life.

As the recipient of the highest honor that it is possible for this Association to give you, may I state into the record that you are held in the highest esteem by the membership of this Association, an organization which represents the best in organized medicine and service to fellow man.

Be assured that, at the end of each day of your exhausting, professional efforts, and when the sun has gone down and the moon silhouettes the countryside and the susurant pine takes proper cadence with that which is so typically southern, the song of the whippoorwill, your

friends and neighbors and patients, and the membership of this Association will send up prayers to the Throne for you.

May you enjoy a long period of an abundance of happiness and prosperity.

Dr. Turberville: Doctor, I accept this in the spirit in which it was given. I thank you.

Announcement was made of a meeting of the executive committee following adjournment of the present general session.

Motion by Doctor Herpel that the members of the Florida Medical Association go on record as expressing their appreciation to the Duval County Medical Society and its associate committees that had to do with the operation of such a successful meeting, this expression of appreciation to include also the personnel of the Roosevelt Hotel and the George Washington Hotel and all other agencies in Jacksonville and Duval County which have made it possible for the Association to have this meeting. Motion seconded and unanimously carried. The membership expressed their appreciation by a standing vote.

There being no further business, on motion by Dr. W. McL. Shaw, the president sounded the gavel and declared the Sixty-eighth Annual Meeting of the Florida Medical Association adjourned sine die.

## REGISTRATION

The total registration during the Sixty-Eighth Annual Meeting of the Florida Medical Association, held in Jacksonville, April 28, 29 and 30, was 838; members, 500; visiting doctors, 44; exhibitors, 81; Woman's Auxiliary, 213.

## REGISTRATION LIST

### OFFICERS

TURBERVILLE, J. SAM, President ..... *Century*  
JONES, WALTER C., President-Elect ..... *Miami*  
BOLING, JOHN R., First Vice President ..... *Tampa*  
RICHARDS, FERDINAND, 2nd Vice President ..... *Jacksonville*  
HARDEE, E. B., 3rd Vice President ..... *Vero Beach*  
RICHARDSON, SHALER, Secretary-Treasurer ..... *Jacksonville*  
THOMPSON, STEWART G., Managing Director ..... *Jacksonville*

### MEMBERS

*Apopka*: T. E. McBride. *Arcadia*: C. H. Kirkpatrick, G. H. McSwain. *Archer*: F. C. Jones. *Atlantic Beach*: K. K. Waering. *Baldwin*: P. A. Brinson, W. D. Brinson, Bartow: J. G. Gilchrist, J. L. Hargrove, C. H. Murphy, W. F. Peacock. *Bay Pines*: Orville N. Nelson. *Belle Glade*: William J. Buck. *Boynton*: Nat M. Weems. *Bradenton*: W. D. Sugg. *Brooksville*: G. R. Creekmore. *Bunnell*: J. R. West. *Century*: J. I. Turberville. *Chattahoochee*: F. E. Daves, F. V. Gammage, W. D. Rogers, E. Henry Ruediger. *Clearwater*: M. A. Nickle. *Cocoa*: T. C. Kenaston, W. C. Page. *Coral Gables*: Jack Q. Cleveland, Ralph Greene, Warren W. Quillian, Hillard Willis. *Crescent City*: E. W. Ford. *Cross City*: J. M. Anderson. *Crystal River*: W. B. Moon.

*Daytona Beach:* J. R. Chandler, George M. Green, E. H. Lenholt, R. L. Miller, Ludo von Meysenbug, J. Ralston Wells. *DeLand:* T. H. Dillard, Mary S. Howarth, Hugh West. *Eustis:* C. M. Tyre. *Fernandina:* George A. Dame. *Foley:* W. J. Baker. *Fort Lauderdale:* Robert Blessing, O. C. Brown, Russell B. Carson, Frank Denniston, R. L. Elliston, Elliott M. Hendricks, H. J. Peavy, Lawrence L. Stepp. *Fort Meade:* G. H. Carefoot. *Fort Myers:* H. Quillian Jones, H. J. Stipe. *Fort Pierce:* R. C. Boothe, M. D. Council, F. A. Gowdy, Cyrus H. Stoner, L. L. Whiddon. *Gainesville:* Edwin H. Andrews, A. T. Cobb, J. M. Dell, Jr., W. Lassiter, John E. Maines, Jr., H. M. Merchant, D. T. Smith, Thomas A. Snow, John Henry Thomas, W. C. Thomas, George C. Tillman. *Grandin:* Z. Brantley. *Greensboro:* O. W. Gardner. *Hawthorn:* George M. Floyd. *Intercess:* C. L. Carter.

*Jacksonville:* Mark E. Adams, Thomas S. Adams, Matthew Arnow, W. L. Ashton, Archie J. Baker, R. M. Baker, D. M. Baldwin, William H. Ball, C. J. Baumgartner, John A. Beals, George E. Beckman, Sullivan G. Bedell, John B. Black, R. W. Blackmar, J. L. Boone, James L. Borland, Fred H. Bowen, Charles W. Boyd, H. L. Brillhart, Oliver P. Brondbent, Alan Brown, J. M. Bryant, Thomas E. Buckman, Edward Canipelli, A. F. Caraway, E. I. Carefoot, T. Z. Cason, B. A. Chapman, Joseph L. Chilli, C. C. Collins, D. N. Cone, S. M. Copeland, Francis A. Copp, H. W. Counts, George W. Croft, Theodore G. Croft, Russell H. Dean, H. R. Drew, S. E. Driskell, L. Y. Dyrenforth, Stanley Erwin, J. D. Ferrara, T. S. Field, F. L. Fort, Dan H. Funkenstein, Julian E. Gammon, L. C. Gonzalez, Banks H. Goodale, J. M. Gorman, A. Judson Graves, Karl Hanson, D. E. Harrell, O. E. Harrell, William G. Harris, James H. Hartman, D. F. Harwell, Tracy Haverfield, J. W. Hayes, Charles F. Henley, Graham E. Henson, Gerry R. Holden, Luther W. Holloway, Victor A. Hughes, Edward Jelks, C. W. Johnston, F. C. Keisling, S. I. Kemp, M. Hayne Kendrick, R. R. Killinger, F. G. King, Raymond King, William W. Kirk, W. Jerome Knauer, F. W. Krueger, L. S. Laffitte, Louie Limbaugh, Thomas H. Lipscomb, A. J. Logic, John F. Lovejoy, J. G. Lyerly, W. H. McCullagh, R. L. McDaniel, H. B. McEuen, R. H. McGinnis, Robert B. McIver, Charles B. Mabry, B. H. Malone, Ben Manhoff, W. S. Manning, Paul H. Martin, Robert D. May, C. C. Mendoza, Webster Merritt, Ernest B. Milam, George M. Mitchell, John H. Mitchell, L. N. Moe, Kenneth A. Morris, S. A. Morris, S. R. Norris, John K. Norwood, Aaron Z. Oberdorfer, George Frederick Oetjen, E. S. Osborne, Jr., J. H. Owens, Thomas M. Palmer, L. L. Parks, James D. Pasco, J. N. Patterson, Harry A. Peyton, William H. Pickett, Leo B. Provinsky, R. B. Ramage, James H. Randolph, George W. Richardson, W. W. Rogers, C. D. Rollins, William E. Ross, Clayton E. Royce, J. V. Safer, Raymond Sanderson, F. H. Schnauss, E. T. Sellers, W. McL. Shaw, Eugene D. Simmons, Frank G. Slaughter, Lauren M. Sompayrac, William M. Stinson, A. D. Stollenwerck, I. Strumpf, E. C. Swift, H. Marshall Taylor, E. H. Teeter, Robert Y. H. Thomas, 3rd, L. V. Tyler, N. A. Upchurch, Harold D. Van Schaick, E. W. Veal, F. J. Waas, Leo M. Wachtel, Clayton Washburn, Merrill Wattles, Joseph Weinreb, C. R. Wilcox, A. K. Wilson, J. Frank Wilson, D. C. Witt, B. F. Woolsey, R. S. Wynn.

*Jacksonville Beach:* Earl H. Roberts. *Kissimmee:* T. M. Rivers. *Lacoochee:* W. H. Walters. *Lake City:* L. J. Arnold, Jr., T. H. Bates, R. B. Harkness, H. S. Howell, W. S. Nichols, J. F. Pitman. *Lakeland:* J. R. Boulware, Jr., Sam J. Clark, R. L. Cline, Henry Fuller, F. K. Hurt, T. H. Roberts, W. L. Tillis, Herman Watson. *Lake Wales:* J. P. Tomlinson. *Lake Worth:* A. L. Rowe. *Leesburg:* Clyde F. Bowie, H. G. Holland, Marion B. O'Kelley. *Live Oak:* Irby H. Black. *McIntosh:* J. L. Strange. *Madison:* F. V. Chappell. *Manatee:* T. M. McDuffee. *Marianna:* Rayburn N. Joyner, D. A. McKinnon, C. D. Whitaker. *Melbourne:* I. M. Hay.

*Miami:* James L. Anderson, H. A. Barge, W. J. Barge, Nelson M. Black, C. P. Bullard, Gail E. Chandler, F. H. Dieterich, L. W. Dowlen, C. E. Dunaway, Herbert Eichert, R. M. Fleming, M. Jay Flipse, Elmo French,

J. Raymond Graves, John E. Hall, Laura M. Hobbs, B. F. Hodsdon, Carlos P. Lamar, W. T. Lanier, A. G. Levin, A. Buist Litterer, J. H. Lucinian, William McKibben, P. J. Manson, James H. Mendel, James J. Nugent, Thomas O. Otto, N. O. Pearce, Homer L. Pearson, Rufus Pearson, J. Randolph Perdue, Edgar Peters, Kenneth Phillips, G. Raap, Homer A. Reese, Wiley M. Sams, Ralph S. Sappenfield, E. Clay Shaw, J. W. Snyder, Robert T. Spicer, Franz Stewart, Joseph S. Stewart, W. J. Vinson, G. J. Walsh, Lynn W. Wheelchel, M. C. Wilson, A. W. Wood, Frank M. Woods, Corren P. Youmans, Iva C. Youmans.

*Miami Beach:* M. B. Cirlin, James R. Cogan, O. S. Dowlen, A. R. Hollender, Walter T. Hotchkiss, George N. Leonard, M. B. Marks, W. Duncan Owens, Cayetano Panettiere, F. J. Payton, Julius R. Pearson, Harold A. Ryan, E. J. Thomas, Harrison A. Walker, A. W. Wallace. *Miami Springs:* Estella G. Norman. *Micanopy:* I. A. Dailey. *Milton:* Rufus Thames. *Mount Dora:* H. T. Fenn. *New Smyrna Beach:* W. C. Chowning, Harry Z. Silsby. *Ocala:* R. D. Ferguson, E. G. Lindner, Carney W. Mimms, J. N. Moore, Eugene G. Peek, H. F. Watt.

*Orlando:* Dorothy D. Brame, J. H. Buff, H. H. Caffee, J. R. Chappell, C. J. Collins, H. A. Day, Spencer A. Folsom, F. D. Gray, G. T. Gwathmey, John R. Hatfield, R. P. Henderson, L. C. Ingram, Hewitt Johnston, L. H. Kingsbury, A. C. Kirk, Palmer Kundert, Duncan McEwan, Meredith Mallory, Louis M. Orr, Gilbert S. Osincup, Grady Page, J. A. Pines, John L. Redding, William P. Rice, Don C. Robertson, W. E. Sinclair, W. H. Spiers, B. E. Taylor, R. D. Thompson, Richard H. Walker, Jr., Walter A. Weed. *Palatka:* Allen P. Gurganious, H. A. Johnson, G. M. Zeagler. *Palm Beach:* B. B. Sory, Jr. *Panama City:* A. H. Lisenby, W. C. Roberts.

*Pensacola:* G. N. Click, L. C. Fisher, Jr., C. J. Heinberg, J. M. Hoffman, S. G. Kennedy, M. A. Lischkoff, John J. McGuire, J. N. McLane, J. C. McSween, W. C. Payne, Herbert W. Virgin, Jr., C. C. Webb. *Pierson:* P. L. Moon. *Plant City:* J. W. Alsobrook, W. J. Holt, T. C. Maguire. *Pompano:* George S. McClellan. *Port St. Joe:* A. L. Ward. *Quincy:* J. C. Davis, William W. Massey. *Raiford:* O. L. Kelley. *St. Augustine:* Reddin Britt, Charles C. Grace, R. D. Harris, V. A. Lockwood, D. T. Rankin, A. C. Walkup, Walter D. Webb, Herbert E. White.

*St. Petersburg:* James A. Bradley, William M. Davis, Stephen A. Dawson, Annette M. Feaster, O. O. Feaster, L. M. Gable, N. W. Gable, John A. Herring, R. H. Knowlton, Prescott LeBreton, W. C. McConnell, Earl C. MacCordy, Norval M. Marr, A. L. Mills, Ralph D. Murphy, R. Wynn S. Owen, H. Tuttle Stull, H. W. Wade, A. J. Wood, LeRoy A. Wylie. *Sanford:* G. H. Putnam, G. S. Selman, J. N. Tolar. *Sarasota:* John M. Butcher, Joseph Halton, John J. Jares. *Sebring:* Leland H. Dame, L. W. Martin, H. V. Weems. *Tallahassee:* Edson J. Andrews, Terry Bird, G. W. Brown, L. L. Dozier, E. W. Ekermeier, Francis T. Holland, Henry E. Palmer, J. H. Pound, B. M. Rhodes, B. A. Wilkinson.

*Tampa:* C. A. Andrews, L. S. Annis, A. M. Bidwell, H. J. Blackmon, W. C. Blake, G. C. Bottari, Leland F. Carlton, H. G. Cole, H. M. Cook, J. T. Cowart, J. C. Dickinson, R. R. Duke, W. P. Duncan, R. A. Ely, James L. Estes, S. B. Forbes, John S. Helms, Jr., B. W. Lowry, W. H. McConnell, J. R. McEachern, Douglas D. Martin, Frank C. Metzger, John T. Moore, David R. Murphey, Jr., Robert G. Nelson, William M. Rowlett, C. A. Rudisill, E. F. Shaver, H. Mason Smith, Joseph W. Taylor, R. S. Torbett, J. C. Vinson, E. Bryant Woods. *Taverna:* Harry B. Smith. *Titusville:* G. E. Christie. *Umatilla:* A. H. Gleason. *Vernon:* B. W. Dalton. *Vero Beach:* J. B. Kollar, J. C. Robertson, *Wauchula:* M. A. Collier, B. D. Spears. *West Palm Beach:* George M. Dawson, S. W. Fleming, Frederick K. Herpel, Gaylord Lewis, Lloyd J. Netto, J. H. Pittman, L. M. Rozier, W. Y. Sayad, J. R. Sory, Edgar W. Stephens, V. D. Stone, W. E. Van Landingham, H. A. Wakefield, William H. Weems. *Winter Garden:* B. H. Lawson. *Winter Haven:* Benjamin J. Bond.



## VISITING DOCTORS

*Apalachicola*: R. J. Lamb. *Camp Blanding*: I. H. Friedberg, E. O. Gates, John T. Gibbons, Howard J. Hutter, C. I. Kuntz. *Crescent City*: A. B. Harbison. *Jacksonville*: Bert R. Boone, J. L. Bostwick, Jack H. Bowen, W. R. Burkhardt, Robert H. Cleveland, O. T. Gower, Herman A. Gross, T. D. Halliday, L. J. Hanchett, Lloyd N. Harlow, E. F. Hoffman, Thomas E. Morgan, A. Sherrod Morrow, A. E. Rogers, J. J. Smith, W. F. Whitehead, Edwin O. Wicks. *Jasper*: Robert F. Sayre. *Miami*: W. W. Davies, H. E. Parnell. *Monticello*: Clifford J. Gay. *Orange Park*: Leon E. Brawner. *Orlando*: E. J. Teagarden.

*Alabama—Birmingham*: Seale Harris. *Dothan*: John T. Ellis. *Georgia—Augusta*: E. F. McCall, E. S. Sander-son. *Canton*: Charles R. Andrews, Jr. *Emory University*: Russell H. Oppenheimer. *Jasper*: C. J. Roper. *Michigan—Wayne City*: Robert P. Richardson. *New Jersey—Newark*: Andrew L. Barrett. *North Carolina—Greensboro*: S. F. Ravenel. *Ohio—Dayton*: James Sagebiel. *Pennsylvania—Chambersburg*: F. N. Emmert. *South Carolina—Columbia*: Edward I. Melich. *Virginia—Norfolk*: Smith R. Brittingham.

## EXHIBITORS

Abernathy, J. H., Southeastern Optical Co., Jacksonville  
Adams, Hugh I., Surgical Supply Co., Orlando  
Anderson, C. N., Westinghouse X-Ray, Jacksonville  
Arrington, F. R., Genl. Elec. X-Ray Corp., Jacksonville  
Avery, W. E., C. B. Fleet Co., Lynchburg, Va.  
Bartee, H. E., Cameron Surg. Specialty Co., Rochelle, Ga.  
Black, L. H., E. R. Squibb & Sons, Jacksonville  
Bocock, J. Harry, Schering Corp., Washington, D. C.  
Bond, W. R., Schering Corp., Bloomfield, N. J.  
Britt, Walter S., Surgical Supply Co., Jacksonville  
Brown, Harry, Tablerock Laboratories, Jacksonville  
Brown, J. Max, Tablerock Laboratories, Valdosta, Ga.  
Bunton, Paul B., American Optical Co., Atlanta, Ga.  
Byrd, Dick, Surgical Supply Co., Miami  
Campbell, Allan, Surgical Supply Co., Orlando  
Capps, C. Glynn, Southeastern Optical Co., Plant City  
Carter, J. M., Petrolagar Laboratories, Tampa  
Casey, Allen M., Wm. S. Merrell Co., Tampa  
Christie, W. M., E. R. Squibb & Sons, Coral Gables  
Cooper, Frank E., Jr., Surgical Supply Co., Miami  
Couchman, Paul, Mennen Co., Newark, N. J.  
Davis, Charles E., Surgical Supply Co., Jacksonville  
Davis, E. M., Petrolagar Laboratories, St. Petersburg  
Davis, W. P., Southeastern Optical Co., Tampa  
Dickinson, F. L., John Wyeth & Brother, Tampa  
Duck, E. C., Ciba Pharmaceutical Prod., Summit, N. J.  
Foote, P. A., Sch. of Phar., U. of Fla., Gainesville  
Fowlkes, C., Southeastern Optical Co., Jacksonville  
Garden, R. N., Keleket X-Ray Co., Jacksonville  
Goff, Herbert S., Surgical Supply Co., Jacksonville  
Green, D. J., Parke, Davis & Co., Jacksonville  
Gregory, Jack, Surgical Supply Co., Jacksonville  
Griffin, Walter, Sch. of Phar., U. of Fla., Jacksonville  
Hardy, L. B., Jr., John Wyeth & Brother, Atlanta, Ga.  
Hathaway, James C., John Wyeth & Brother, Miami  
Heather, Hans B., Keleket X-Ray Co., Miami Beach  
Hirsch, E. S., Southeastern Optical Co., Miami  
Horton, H. E., Genl. Elec. X-Ray Corp., Tampa  
Howbridge, John J., Schering Corp., Bloomfield, N. J.  
Hunt, Wayne C., Keleket X-Ray Co., Jacksonville  
James, F. P., Amer. Exhibition Co., Birmingham, Ala.  
James, Mrs. F. P., Amer. Exhibition Co., B'ham, Ala.  
Jones, Josephine, Bard-Parker Co., Danbury, Conn.  
Jongedyk, P., Genl. Elec. X-Ray Corp., Miami  
Jordan, C. R., Sch. of Phar., U. of Fla., Gainesville  
Keith, D. R., A. S. Aloe Co., St. Louis, Mo.  
Kellerman, Herman, C. V. Mosby Co., Tampa  
Lamont, C. W., Petrolagar Lab., Washington, D. C.  
LeMaire, A. I., American Med. Assn., Hollywood, Calif.  
Lester, O. D., Lederle Laboratories, Jacksonville  
Limberger, O. G., Wm. S. Merrell Co., Valdosta, Ga.  
Lindeblad, Don, Amer. Hosp. Sup. Corp., St. Petersburg

Limley, J. E., E. R. Squibb & Sons, Coral Gables  
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McPhaul, W. A. Jr., Surgical Supply Co., Jacksonville  
Martin, A. E., John Wyeth & Brother, Atlanta, Ga.  
Miller, D. L., Harold Surgical Corp., New York, N. Y.  
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## CONVENTION ECHOES

### HOTELS

Edward Jelks, *Chairman*

The local Committee on Hotels received no complaints from members of the Association relative to the service which they received from the hotels while guests at the annual meeting. It seemed to the members of the Committee that the managements of the various hotels gave hearty cooperation, endeavoring to make the stay of everyone comfortable and pleasant. The facilities for the various activities of the convention seemed adequate. The Committee hopes that the exhibitors and visitors were pleased with the facilities offered.

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### ANGLERS

Banks H. Goodale, *Chairman*

Our Committee reports a very successful fishing tournament. Wonderful turtle steaks from a 67-pound sea turtle landed by Mrs. T. E. McBride, wife of Dr. McBride of Apopka, were greatly enjoyed. Those who participated in the sport of fishing expressed themselves as having had a most enjoyable time. The following prizes were awarded:

First prize, Dr. James H. Mendel, Miami—traveling bag (donated by Mead Johnson and Company). Second prize, Dr. S. B. Forbes, Tampa—reel (by McKenna's Camp). Third prize, Dr. T. E. McBride, Apopka—I dozen ST 37 tooth paste (by Sharp & Dohme). Fourth prize, Dr. John R. Hatfield, Orlando—silver picrate insufflator outfit (by John Wyeth & Brother). Booby prize, for catching no fish, Dr. J. H. Pittman, West Palm Beach—five year calendar (by Mead Johnson & Company).

### ALUMNI AND FRATERNITY LUNCHEONS

Edwin C. Swift, *Chairman*

The following alumni and fraternal luncheon meetings were held: Emory University Alumni luncheon, addressed by Dr. Russell Oppenheimer, Dean of the School of Medicine; University of Georgia Alumni luncheon, addressed by Dr. E. S. Sanderson, Professor of Bacteriology and Public Health; Phi Chi Medical Fraternity, addressed by Dr. Albert F. Saunders, Grand Secretary; Tulane Medical School luncheon; Jefferson Medical College luncheon; Alpha Kappa Kappa Medical Fraternity luncheon; and the Phi Beta Pi Medical Fraternity luncheon.

These luncheons were well attended and the prevailing question was: why were not more of these reunions held in the past? The Committee wants to thank the speakers for their cooperation.

\* \* \*

### ASSOCIATION DINNER

Turner Z. Cason, *Chairman*

On Tuesday evening, April 29, in the spacious ballroom of the Roosevelt Hotel, 383 members and guests of the Florida Medical Association assembled for dinner. Beautiful flowers adorned the tables and splendid music added to the festivity of the occasion. The principal speaker of the evening was Dr. Seale Harris. Two guests from the Air Station were also introduced by Dr. Ernest B. Milam. Prizes were awarded by the chairmen of the sports committees and promptly at 10 o'clock the tables were cleared away. Two very pleasant hours of dancing followed.

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*Assists the Medical Author in the Preparation of Scientific Papers*

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Manuscripts typed for publication

Literature reviewed

Medicolegal subjects summarized

References completed

Public addresses prepared

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935 SOUTH OREGON AVE.

Terms Reasonable

TAMPA, FLORIDA

# Florida Medical Association, Inc.

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GEORGE M. DAWSON, M.D., Alternate ..... *West Palm Beach*  
(Terms expire Dec. 31, 1943)

Committees — Continued on page 624



WALTER C. JONES, OUR PRESIDENT

Dr. Walter C. Jones of Miami was installed as president of the Florida Medical Association at the recent convention held in Jacksonville.

Dr. Jones was born at Waverly Hall, Ga., the son of Walter Colquitt and Martha Powell Jones, on November 27, 1896. He received his premedical education at Meridian College and his medical training at Emory University, from which he was graduated as a Doctor of Medicine in 1921.

On January 29, 1924, Dr. Jones and Miss Dorothy Jennings were married. They have two sons, Walter Colquitt, III, and Clarke Jennings.

Since coming to Florida Dr. Jones has taken an active interest in the affairs of organized medicine. He has held many important posts in the State Medical Association and in the Dade County Medical Society. He is a member of the Southern Surgical Association, the Southeastern Surgical Congress, the American College of Surgeons; a Fellow of the American Medical Association; and a counselor for the Southern Medical Association. He is a member of the surgical staff of Victoria Hospital, Miami, and has been a chief of the surgical staff of Jackson Memorial Hospital in that city since 1926, serving as president of staff in 1930.

Recognized as a leader in his specialty, respected for his sound judgment and unflinching courage, admired for his sincerity and good humor, Dr. Jones assumes office at a turbulent time in our history when these qualities are greatly needed.



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**ANNUAL CONVENTION HELD IN  
JACKSONVILLE**

The Sixty-Eighth Annual Meeting of the Florida Medical Association, held in Jacksonville, was another outstanding event. The total registration was 838, of which number 500 were members of the Association, 44 were visiting doctors, 213 were members and guests of the Woman's Auxiliary, and 81 were representatives of exhibiting firms. While the Jacksonville meeting was well attended, the Tampa meeting last year still holds the attendance record.

The Duval County Medical Society, through its officers and well organized committees, did everything possible for the comfort and pleasure of the members and guests. Dr. Luther W. Holloway, general chairman of the local committee on arrangements, distinguished himself as a leader.

**HOUSE OF DELEGATES**

The first session of the House of Delegates convened Monday at 1:30 p. m. at the George Washington Hotel, with 61 delegates seated. Dr. Meredith Mallory of Orlando was re-elected delegate to the A. M. A. for a two-year term from January 1, 1942 to December 31, 1943; Dr. George M. Dawson of West Palm Beach was elected his alternate. On recommendation of the Executive Committee, Palm Beach was selected as the place for the 1942 annual meeting.

Three reference committees of five members each were appointed from the delegates by President J. Sam Turberville. All resolutions and annual reports of committees were referred to one or another of the reference committees. These committees met Monday evening at which time members interested in matters under consideration were heard before official recommendations were decided upon. This new procedure, tried for the first time a year ago, has proved to be of definite value. It not only eliminates long-drawn-out debate on the floor of the House of Delegates, but brings together those members interested in particular questions, in a small group where the merits of the proposals may be discussed and explained before action is taken.

The complete text of recommendations by reference committees and actions taken by the House of Delegates may be found in the preceding pages of this Journal.

**STATE DUES—MEMBERS MILITARY  
SERVICE**

Effective January 1, 1942, members will not be required to pay state dues when engaged in military service. All members are urged to have their 1941 dues paid so as to qualify under a resolution passed at the last meeting of the House of Delegates. The complete text of the resolution was mimeographed and mailed to secretaries of all component societies and also may be found in this Journal in the proceedings of the second meeting of the House of Delegates.

#### GENERAL SESSIONS

Three general sessions were held during the convention, the first on Monday at 4:30 p. m., when the president's annual address was delivered by Dr. J. Sam Turberville and the annual report of the secretary-treasurer-editor and the managing director was read by Dr. Shaler Richardson. The delegate from the Medical Association of Georgia was then recognized.

The second general session convened Tuesday at 11:30 a. m. By invitation an address on "Banting; Benefactor of Mankind" was delivered by Dr. Seale Harris, Professor Emeritus of Medicine, University of Alabama, Birmingham. The third general session convened Wednesday at 12:05 p. m. Dr. Gilbert Osincup of Orlando was elected president-elect; Dr. Luther W. Holloway of Jacksonville, first vice-president; Dr. Frederick K. Herpel of West Palm Beach, second vice-president; Dr. Walter C. Payne of Pensacola, third vice-president; and Dr. Shaler Richardson of Jacksonville, secretary-treasurer and editor of the Journal. The past president's button was presented to Dr. J. Sam Turberville by Dr. Ralph Greene, chairman of the Board of Past Presidents.

#### SCIENTIFIC ASSEMBLIES

At the first scientific assembly, held Monday at 7 p. m., three papers were presented; at the second, held Tuesday at 9 a. m., three papers were read; at the third, held Tuesday at 1:45 p. m., four papers were presented; and at the fourth, held Wednesday at 9 a. m., four papers were heard and a clinicopathologic conference held. The House of Delegates highly commended the Association's Committee on Scientific Work for their well-selected and arranged program which comprised the scientific assemblies. Names of the essayists and titles of their papers were published in the April Journal and the complete papers with discussions will appear in coming issues of the Journal.

#### SPECIALTY SOCIETIES

During Sunday and up until Monday noon, ten specialty groups held annual meetings, at which time excellent scientific programs were presented. The meetings of the specialty groups add greatly to the interest and value of the annual convention. Complete programs of the specialty societies were published in the April Journal.

#### ENTERTAINMENT

The stag smoker was held Monday at 9 p. m. in the George Washington Hotel. Dr. Robert B. McIver, chairman of the smoker committee, together with his associates, entertained the members and guests royally.

On Tuesday evening the Association dinner was held in the Ballroom of the Roosevelt Hotel. Dr. T. Z. Cason, chairman of the local committee, with his associates, carried out plans for a most pleasant evening.

#### EXHIBITS

Four scientific exhibits were on display throughout the meeting, arranged by the Bureau of Professional Relations, School of Pharmacy, University of Florida, Gainesville; Drs. Shaler Richardson and Charles W. Boyd of Jacksonville, on Contact Lenses; Florida Tuberculosis Sanatorium, Dr. R. D. Thompson, Superintendent and Medical Director, Orlando; Dr. Allen P. Gurganious, Palatka, as well as several interesting displays by the Woman's Auxiliary. Thirty-three technical exhibits, supervised by 81 representatives of the exhibiting firms, were well attended and contributed materially to the success of the meeting.

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#### VIOLATIONS OF MEDICAL PRACTICE ACT

We are advised that a man claiming to be Milton Ford and reported as practicing medicine in Escambia County failed to appear for arraignment or trial and his bond of \$500.00 was ordered estreated and paid; that he was declared a fugitive from justice and a fugitive warrant is now outstanding. Our records fail to indicate that Milton Ford possesses a license to practice medicine in Florida. It was claimed that Milton Ford is authorized to practice medicine in Kentucky and that his medical diploma was stolen.

Also we are advised that Isaac Decatur Hart was charged with violation of the State Medical Practice Act, pleaded guilty April 29, 1941, and was sentenced by the Judge of the Circuit Court of Crestview to serve one year in the State Penitentiary, Raiford.

These two cases were reported by Mr. M. H. Doss, Director of the Bureau of Narcotics, State Board of Health of Florida.

## INCREASED PREMIUM FOR LIABILITY INSURANCE

Figures presented to the Executive Committee of our Association by Mr. P. L. Harrison, chief underwriter of the Aetna Casualty and Surety Company, indicated that an increase for basic limits was needed. These figures were based on the past five years' experience of the company. The problem was taken up at several meetings of the Executive Committee and through correspondence. The figures indicated that the premium rate for basic limits should be increased \$7.50 to equalize the premium rate with expenditures of the past five years' experience.

An official communication was received May 30, 1941, signed by P. L. Harrison, chief underwriter, advising that consent of the officials of the company's home office had been obtained for only a \$2.50 increase on the basic limits rate. This means that the basic charge, effective June 1, 1941, will be \$25.00 per annum rather than \$22.50. This information is given for the benefit of our members who are covered under the master policy of the Aetna Casualty and Surety Company.

## EXAMINATIONS FOR APPOINT- MENTS IN MEDICAL CORPS OF U. S. NAVY

The next examination for appointments as Assistant Surgeon, U. S. Navy, Lieutenant (junior grade), Medical Corps, U. S. Navy, will be held at all major Medical Department activities on August 11 to 15, inclusive. Applications for this examination must be in the Bureau of Medicine and Surgery not later than July 15.

Applicants for appointment as Assistant Surgeon must be citizens of the United States, more than twenty-one (21) but less than thirty-two (32) years of age at the time of acceptance of appointment, and graduates of a class "A" medical school who have completed at least one year of intern training in a hospital accredited for intern training by the council on Medical Education and Hospitals of the American Medical Association.

An examination for appointment as Acting Assistant Surgeon for intern training in naval

hospitals accredited for intern training by the council on Medical Education and Hospitals of the American Medical Association will be held at all major Medical Department activities on June 23 to 26, inclusive. Students in class "A" medical schools who will complete their medical education this year are eligible to apply for these appointments. Students in class "A" medical schools who will have completed their third year of medical education this year are eligible to take this examination, and if successful will receive their appointments on or about July 1, 1942, after they have completed their medical education.

Applicants for appointment as Acting Assistant Surgeon for intern training must be citizens of the United States, more than twenty-one (21) but less than thirty-two (32) years of age at the time of acceptance of appointment. Acting Assistant Surgeons are appointed for a period of eighteen (18) months. After the appointee has served as an intern in a naval hospital for twelve (12) months, he is eligible for and may take the examination for appointment as Assistant Surgeon, U. S. Navy.

Circulars of information listing physical and other requirements for appointment to either of these positions, subjects in which applicants are examined, application forms and other data pertaining to salary, allowances, etc., may be obtained from the Bureau of Medicine and Surgery, Navy Department, Washington, D. C., upon request.

Assistant Surgeons and Acting Assistant Surgeons for intern training are appointed in the rank of Lieutenant (junior grade), Medical Corps, U. S. Navy. The pay and allowances for an officer of this rank total \$2699 per year if he has no dependents, and \$3158 per year if he is married or has dependents.

## DISTRICT MEETINGS

If you wish to present a paper at the next District Medical Meeting, communicate with Dr. W. Duncan Owens, chairman of the Council, P. O. Box 1018, Jacksonville. Give the title of your proposed paper and, if possible, a short synopsis.



## THE AMA NEEDS A NEW CHARTER

The American Medical Association and its local society in Washington, D. C., have been convicted by a federal jury of violating the anti-trust law. At the same time the jury acquitted all of the individual defendants, who included the principal executive employees of the association.

This verdict had a parallel some months ago in the federal court at South Bend, where the General Motors corporation was convicted of violating the anti-trust laws in financing the sale of its cars, but all of the officers of the corporation were acquitted. This, as it turned out, was most fortunate for Mr. Roosevelt. It saved him the embarrassment of plucking one of the defendants, Mr. Knudsen, out of jail when he needed him to head OPM.

The jurors seem to have been in no doubt that a crime was committed, yet when they were asked to say who committed it their answer was, "Nobody." Perhaps the legal metaphysicians can straighten us out. Queries might well be addressed to the prosecutor of the case, Mr. Thurman Arnold, who has written that anti-trust prosecutions are a sham anyway, being designed to propitiate the public conscience for allowing acts that our moral sense tells us are wrong but which our practical judgment says are necessary.

The charge against the doctors at Washington was that they engaged in a conspiracy in restraint of trade against the Group Health Association, an organization that undertook to furnish government employes with medical care in return for a flat monthly fee. The AMA asserts that arrangements of this type tend to lower the standards of medical care, and in consequence its members, at the instigation of the association's leaders, refused to have any professional relations with the physicians hired by the Group Health organization.

The anti-trust conviction may impress upon the members of the AMA that when they organized they took out the wrong kind of a charter. They should have applied to William Green or John L. Lewis. So equipped, they would not have been reduced to refusing to practice in the same hospitals with a physician who signed up with Group Health. Dr. Morris Fishbein could just have gone around some evening and broken the wrong guy's fingers with a blackjack, an operation that does a surgeon no more good than it does a musician, and Mr. Justice Frankfurter would have told Thurman Arnold not to get himself all wrought up over a passing moment of animal exuberance.

A good broad AFL or CIO charter would solve a lot of the medical profession's economic problems. Its members would not have to worry about overproduction of doctors. They could just close their membership rolls and have some of their members, sitting on the state and local examining boards, prosecute the newcomers for practicing without a license.

Draft boards wouldn't be asking physicians to give their services free for examination of the draftees. All the chest thumping in charity wards would be done at the union scale and any non-union medico who tried to cut in on the business would have to pay \$1,000 initiation fee. Ladies expecting offspring would have to be careful that the labor pains did not start after 4 p. m. on a Friday; otherwise Papa would have to pay double time for a week-end delivery.

The medical union might be able to take on a number of profitable activities that AMA members now deny themselves, such as performing abortions or, for a suitable fee, slipping a dose from the black bottle to millionaires whose heirs were growing impatient. While such activities might arouse public protest, the union docs could be sure that President Green would not bother them. That would be interfering with their autonomy.—Editorial, *Chicago Daily Tribune*, Monday, April 7, 1941. Reprinted by special permission.

## SPECIALTY SOCIETIES

### FLORIDA SECTION, AMERICAN COLLEGE OF PHYSICIANS

This group met Monday, April 28 in the Roosevelt Hotel. Four papers were presented at the scientific session; luncheon was served at 12 noon. The following officers were elected: president, Dr. W. Wellington George, West Palm Beach; secretary, Dr. Kenneth Phillips, Miami (re-elected). The total attendance this year was 45.

\* \* \*

### FLORIDA ASSOCIATION OF DERMATOLOGY AND SYPHILOLOGY

The annual meeting of the Florida Association of Dermatology and Syphilology was held in Jacksonville, April 28, 1941. An interesting clinic was arranged at the Duval County Hospital by the local members. This was followed by a discussion of cases and a business session at which time the following officers were elected: president, Dr. Wiley M. Sams, Miami; secretary, Dr. Lauren M. Sompayrac, Jacksonville (re-elected). Guests of the society were Drs. M. B. Cirlin, Miami Beach; John van de Erve, Charleston, S. C.; and F. A. Copp, Jacksonville. The total attendance was 11.

\* \* \*

### HEALTH OFFICERS' SECTION OF THE FLORIDA PUBLIC HEALTH ASSOCIATION

This group met Monday, April 28 at the Roosevelt Hotel, when four papers were presented. The present officers remain in office until in December. The total number present was 30.

\* \* \*

### FLORIDA ASSOCIATION OF INDUSTRIAL SURGEONS

This group met Sunday, April 27, in the George Washington Hotel at 5 p. m. Three scientific papers and the president's address were delivered, followed by a smoker to which the members of the Railway Surgeons' Association were invited. The following officers were elected: Dr. Frank D. Gray, Orlando, president-elect; Dr. W. G. Harris, Jacksonville, vice-president; and Dr. Kenneth A. Morris, Jacksonville, secretary-treasurer. The total attendance was 33.

FLORIDA SOCIETY OF OPHTHALMOLOGY AND  
OTOLARYNGOLOGY

The Florida Society of Ophthalmology and Otolaryngology held its meeting at 10:30 a. m., Monday, April 28 in the George Washington Hotel. Five papers were presented, followed by a luncheon and business meeting. Officers elected were: Dr. S. B. Forbes, Tampa, president; Dr. Shaler Richardson, Jacksonville, vice president; and Dr. C. E. Dunaway, Miami, re-elected secretary. The attendance at the meeting was 46.

\* \* \*

## FLORIDA RADIOLOGICAL SOCIETY

Two meetings were held by the Florida Radiological Society, one on Sunday, April 27 at 2:30 p. m. in the Roosevelt Hotel and the other on Monday at 9 a. m. Both sessions were largely devoted to round table discussions. Officers elected were: Dr. John N. Moore, Ocala, president; Dr. Elliott M. Hendricks, Ft. Lauderdale, vice president; and Dr. Walter A. Weed, Orlando, secretary-treasurer. The attendance at the meeting was 40.

**BIRTHS. MARRIAGES AND DEATHS**

## BIRTHS

Dr. and Mrs. Ralph Jack of Miami announce the birth of a son, William David II, on February 15, 1941.

\* \* \*

## MARRIAGES

Dr. James R. Norton and Miss Brownie Miller Carter, both of Port St. Joe, were married on March 29.

\* \* \*

Dr. A. Mackenzie Manson of Jacksonville and Miss Virtre Adams of Nashville were married March 17 at New Orleans.

\* \* \*

## DEATHS

Dr. William Andrew Haggard of Miami died on April 3, 1941

**STATE NEWS ITEMS**

Dr. W. O. Fowler of Orlando delivered a paper on "Therapeutic Pneumoperitoneum in the Treatment of Pulmonary Tuberculosis and its Role in the Scheme of Collapse Therapy" before the annual meeting of the National Tuberculosis Association in San Antonio, Texas, May 5 to 8. Dr. R. D. Thompson of Orlando discussed a paper on "Rehabilitation of 6,000 Ex-patients Five Years After Discharge."

\* \* \*

Dr. Rosa L. Sullivay of Pensacola was recently in Miami, visiting clinics.

The annual barbecue and picnic of the Orange County Medical Society will be held in Orlando, Thursday, August 7.

\* \* \*

Dr. R. Judson Pearson, Jr. has recently opened offices at 337 Lincoln Road, Miami Beach. His father, Dr. R. J. Pearson, is practicing in Miami.

\* \* \*

Recent visitors to the Association's office in Jacksonville were Drs. J. Sam Turberville of Century, Herbert E. White of St. Augustine, Herbert L. Bryans of Pensacola and Robert D. Ferguson of Ocala.

\* \* \*

Dr. Julius R. Pearson of Miami Beach took a graduate course in internal medicine at the Pennsylvania Hospital, Philadelphia, during the month of June.

\* \* \*

Dr. T. H. Bates of Lake City spent two weeks at the Mayo Clinic, Rochester, Minnesota, the early part of June.

\* \* \*

Dr. George H. Putnam has moved to Sanford and is located in the offices formerly occupied by Dr. T. F. McDaniel who has been called into service.

\* \* \*

Physicians who are in need of qualified laboratory workers will be interested to know that the Florida State Hospital School of Medical Technology at Chattahoochee gives a year's course in medical technology under the supervision of a clinical pathologist, Dr. E. H. Ruediger. This course is fully approved by the American Society of Clinical Pathologists. The students are all college graduates and were especially selected for this training.

One student completed her training on June 1, another will finish the course on July 1 and two on August 1.

\* \* \*

The following Florida doctors attended the meeting of the American Urological Association in Colorado Springs, May 19 to 22: Robert B. McIver, Jacksonville; Milton M. Coplan and E. Clay Shaw, Miami; L. M. Orr, Orlando; E. S. Gilmer, Tampa; and Kenneth Montgomery, West Palm Beach.

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### GEORGE ROBERT SEEBER KING

Dr. Seeber King of Lake Butler, a life member of the Florida Medical Association, died in Jacksonville on February 28. For forty years, since he was graduated from the College of Physicians and Surgeons, Baltimore, Md. in 1901, Dr. King served his community as family physician and friend, and each of the hundreds who attended the funeral service felt a personal loss in his passing.

Dr. King was born in LaBelle, Mo. in 1878, and came to Lake Butler in boyhood with his parents, the late John A. King and Mrs. Jeanette Grey Seeber King. He was married to Agnes Virginia Overington Wilson of Boonsboro, Maryland in 1903. Mrs. King died in July 1922. Of his immediate family he is survived by two sisters, Mrs. Henry Fowler of Lake Butler and Miss Esther King of Raleigh, N. C.

Having been an active member of the Florida Medical Association for thirty-five years, Dr. King became a life member in 1940. He was also a member of the Alachua County Medical Society and the American Medical Association.

A competent physician and surgeon, he could undoubtedly have earned a success in city practice, but preferred to spend his life in his small home community where he felt the need for his services was greatest. During the years of his practice, he was known for his unfailing devotion to duty and his conscientious ministrations to the sick.

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### CULLEN BRYANT WILSON

Dr. Cullen B. Wilson, 63, a practicing physician in Sarasota for thirty-five years, died in a Tampa hospital on February 24, following an illness of about two months.

Dr. Wilson was a life-long resident of what is now Sarasota county. He was born July 11, 1878, at Miakka, the son of the late State Senator A. M. Wilson and Callie Crum Wilson. His preliminary education was received at the Florida Military Institute and the University of Florida, and his medical degree from the University of Alabama in 1906. He was married to Fannie Reaves of Fruitville and began practice in that community after his graduation.

Dr. Wilson is survived by his widow; two sons, Clyde H. Wilson of Sarasota, state attorney of the 12th judicial circuit, and Dr. Reaves A. Wilson of Miami; four brothers, Dr. R. C. Wilson of Tampa, Solon G. Wilson of Bartow, the Rev. Shelby A. Wilson of Bartow, and A. E. Wilson of Boyette; and three sisters, Mrs. Bertha Knight of Bartow, Mrs. Mabel Curry of Nokomis, and Mrs. Julia Hughes of Bartow.

As a man and as a physician Dr. Wilson enjoyed the respect and confidence of everyone. In the development of Sarasota from a fishing village with a few inhabitants, he made his contribution. The old time family doctor, held in high esteem and today largely cherished as a memory, was exemplified in his practice of medicine.

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### JESSE AHMED STRICKLAND

Dr. Jesse A. Strickland of St. Petersburg died on March 14 at the age of 60.

The Pinellas County Medical Society at a meeting held April 4, passed the following resolutions:

WHEREAS the Lord has called from our midst one beloved member; be it

RESOLVED that the Pinellas County Medical Society express its sincere sympathy by action at its regular meeting held at St. Petersburg, Florida this fourth day of April, 1941. Be it further

RESOLVED that such action be sent in writing to the widow and to the Journal of the Florida Medical Association for publication and be spread upon the minutes of this Society.

(Signed) A. R. Frederick,  
Chairman of Committee.

Dr. J. A. Strickland died at his home after a short illness. He came to St. Petersburg 15 years ago from Norfolk, Virginia. A native of North Carolina, he received his academic and medical degrees from the University of North Carolina. Before coming to Florida he practiced at Zebulon, N. C. and Norfolk; he was a medical officer during the World War. A member of the Pinellas County Medical Society and of the staffs of Mound Park and St. Anthony's Hospitals he was also a past president of the local Shrine Club, a member of the Sunshine Commandery, Knights Templar; Tampa Consistory; Egypt Temple; St. Petersburg lodge No. 139 F & AM; St. Petersburg lodge No. 1224 Elks. He was a past president of the local Lions Club, a member of the Army and Navy Club and the American Legion.

Dr. Strickland was a physician of great ability, respected and admired by his colleagues.



He is survived by his widow, Mrs. Lela Flowers Strickland; two daughters, Mrs. Edward Dwelle, Jr. and Miss Frances Strickland; a granddaughter; two brothers and two sisters of Wilson, N. C.

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### WILLIAM EDWARD FOY

Dr. William E. Foy, practicing physician of Fort Pierce for the past four years and city physician for the past year, died suddenly on April 16, at the age of 34.

Dr. Foy was a native Floridian, having been born in St. Augustine Oct. 21, 1906, son of the late William J. Foy and Flora Mulholland Foy. He attended St. Augustine schools and the University of Florida, from which he was graduated in 1928. He then took pre-medical work at Villanova college, Philadelphia, and was graduated from Temple University School of Medicine, Philadelphia, in 1933. He served internships in Temple University Hospital, Shriners' Hospital for Crippled Children, Municipal hospital for contagious diseases, and Episcopal hospital, all in Philadelphia. He came to Fort Pierce and began the practice of medicine in 1936.

He was a member of the national social fraternity Pi Kappa Alpha, the local Elks lodge, the Lions club, was on the staff of Fort Pierce Memorial hospital, member of the St. Lucie-Okeechobee - Indian River - Martin County Medical society, the Florida Medical Association, and the American Medical Association. He volunteered for service in the army medical corps last December and was sent to Camp Blanding, but was released with honorable discharge in February because of physical disability.

Dr. Foy held the distinction of having been awarded the Carnegie medal for heroism. The award was made on the basis of his heroic action in Philadelphia on Oct. 11, 1928, while a student at Villanova, in rescuing two trapped workmen, George Hutton and William M. Harmer, from a gas-filled manhole.

Dr. Foy is survived by the widow, Mrs. Mary Magdalene McManus Foy, to whom he was married on Feb. 1, 1940; his mother, Mrs. W. J. Foy, St. Augustine; and two brothers, Dr. Eugene T. Foy of Temple University hospital, Philadelphia, and Walter, St. Augustine.

The following Resolutions on the death of

Dr. Foy were recently passed by his local medical society:

*WHEREAS*, our friend and fellow physician, W. E. Foy, has passed from our midst, and

*WHEREAS*, in his going the members of the St. Lucie-Okeechobee-Indian River-Martin County Medical Society feel deeply the loss of a faithful and loyal co-worker who, by his efforts toward the relief of suffering, has endeared himself to the members of the profession and to the Community.

*BE IT RESOLVED*, therefore by the St. Lucie-Okeechobee-Indian River-Martin County Medical Society that they extend to his wife, Mrs. Mary Foy, and to his mother, Mrs. W. E. Foy, their sincere sympathy with the hope that they may find comfort in the knowledge that his loss is shared keenly by those with whom he came in contact, and

*BE IT FURTHER RESOLVED* that copies of this resolution be given to his mother, his wife, the Florida Medical Association, and a copy be spread on our minutes for a permanent record.

*ADOPTED* by unanimous vote of St. Lucie-Okeechobee-Indian River-Martin County Medical Society at its regular meeting in Fort Pierce, Florida, April 17, 1941.

H. D. Clark, M. D.  
L. L. Whiddon, M. D.  
R. C. Boothe, M. D.

Committee.

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### WILLIAM ANDREW HAGGARD

Dr. William A. Haggard of Miami died suddenly on April 3 at the age of 56.

A graduate of the Medical Department of the University of Alabama in the class of 1911, he took postgraduate work at Tulane University before beginning his practice in Brooklyn, Ala. He moved to Miami in 1925 where he built up a large practice. He was on the surgical staff of the Jackson Memorial Hospital and also in charge of the radio programs sponsored by the Dade County Medical Society.

Dr. Haggard was a member of the Scottish Rite Masons, the Mahi temple of the Shrine, the Central Baptist church, and was affiliated with the Dade County Medical Society, the Florida Medical Association and the American Medical Association. He leaves the widow, Mrs. Estella A. Haggard; a son, Curtis, a senior at the University of Louisville Dental School; a daughter, Mrs. Gladys Bishop.

Dr. Haggard had the respect of his colleagues, the confidence of his patients, and the friendship of his large circle of acquaintances, all of whom will feel a personal loss in his death.

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## ARTHUR WESLEY KNOX

Dr. Arthur W. Knox, who came to Sanford in 1926 and became one of the city's leading physicians, died May 1, following an illness of several years. He was 57 years old.

Born April 5, 1884, at Shawville, Quebec, Canada, Dr. Knox received his early education at Beachburg, Ontario, Canada. He taught school and farmed in western Alberta for eight years, and the money he saved during this time put him through the medical school at the University of Toronto, from which he was graduated in 1916.

Dr. Knox went overseas with the Canadian Expeditionary Force in 1916 with the rank of Captain. He served until December, 1918, much of the time with the British Expeditionary Force in France.

Returning to Canada following the war, Dr. Knox practiced medicine in Weyburn and Colgate, Saskatchewan, until the Fall of 1926, when he came to Sanford. He joined the Florida National Guard shortly after his arrival in that city, and served as commanding officer for the 124th Infantry Medical Detachment. In 1940 he was retired, due to ill health, with the rank of a lieutenant colonel.

Dr. Knox was an honorary member of the Sanford Lions Club, a member of the Weyburn Chapter of the Royal Arch Masons, past president of the Seminole County Medical Society, a member of the First Presbyterian Church, and of the Florida Medical Association and the American Medical Association.

In 1930 Dr. Knox attended the Medical Field Service School at Carlisle Barracks, Pa., and was awarded the McCamant Medal for the highest standing in military hygiene and sanitation. At that time, only three such awards had been made in the history of the institution.

In 1916 he was married to Mary James Dunbar in Toronto. He is survived by his widow and a daughter, Miss Muriel Knox, both of Sanford, three sisters, Mrs. Walter Little and Mrs. Winnie Kearney of Kirkland Lake, Ontario and Mrs. G. V. Kerns, New York City; two brothers, Dr. W. J. Knox, Kelowna, British Columbia, and Joe W. Knox of Kirkland Lake.

## COMPONENT COUNTY SOCIETIES

### BROWARD

The following doctors head the Broward County Medical Society for the current year: Dr. Frank Denniston, president; Dr. M. N. Camp, vice-president; and Dr. E. C. Chamberlain, secretary-treasurer.

\* \* \*

### DADE

The Dade County Medical Society met at the Sunshine Room of the Ingraham Building on the evening of April 2. The following program was presented:

"Diarrhea and Dysentery Among Children of South Florida"—Dr. Warren W. Quillian; discussed by Drs. P. B. Welch and William W. McKibben.

"Value of Hormone Assays in Obstetrics, Gynecology and General Practice"—Dr. James R. Cogan; discussed by Dr. M. C. Wilson and Dr. Arthur Seinberg, Director of Philadelphia Endocrine Research Clinic.

At the meeting held on May 7, three papers were read:

"The Blood Bank"—Dr. Donald Smith.

"Use of Preserved Blood and its Relationship to Fluid and Plasma Balance"—Dr. Scheffel Wright.

"Pathological Physiology of Secondary Shock and its Therapy"—Dr. Herman Boughton.

\* \* \*

### ESCAMBIA

The Escambia County Medical Society held its regular monthly meeting on May 13 at the State Board of Health Building, Pensacola. Dr. Willard Wirth, cardiologist of New Orleans, presented a paper on "Electrocardiography".

After the meeting Dr. W. S. Randall held a reception at his home in honor of Dr. Wirth.

\* \* \*

### LEE

The Lee County Medical Society has become the eighth component group to report 100% of 1941 dues. Dr. M. F. Johnson is president and Dr. H. Quillian Jones, secretary, of this society.

\* \* \*

### MANATEE

At the annual election of officers, the following doctors were chosen to head the Manatee County Medical Society for 1941: Dr. W. E. Wentzel, president, and Dr. W. D. Sugg, secretary-treasurer.

## PASCO-HERNANDO-CITRUS

Dr. W. B. Moon, president of the Pasco-Hernando-Citrus County Medical Society, entertained the Society, on the evening of May 8 with a delightful boat trip on the famous Crystal River and the Gulf of Mexico. The flapper boat was piloted by Captain Roddie Jones and J. T. Brown was chef. The guests were entertained by fishing and a fish dinner was served on board.

A short business session was held at which Dr. Claude L. Carter of Inverness invited the members of the Society to be his guests on June 12. A vote of thanks was extended to Dr. and Mrs. Moon for this delightful trip, and to Captain Jones and Chef Brown for the part they played in making this a memorable occasion.

Those enjoying this trip were: Dr. and Mrs. Bradshaw of San Antonio, Dr. and Mrs. Carter of Inverness, Dr. Harvard, Dr. and Mrs. Creekmore of Brooksville, Dr. Jones of Dade City, Dr. Young of Bushnell, Dr. Walters and Miss Helen Hancock of Lacoochee, Dr. and Mrs. Moon and their daughter, Mrs. Benita White.

\* \* \*

## ST. JOHNS

The St. Johns County Medical Society has joined the Honor Roll of 100% paid societies. Dr. A. C. Walkup is president, Dr. Reddin Britt, vice-president, Dr. Charles C. Grace, secretary, and Dr. R. D. Harris, treasurer of the society.

\* \* \*

ST. LUCIE-OKEECHOBEE-INDIAN RIVER-  
MARTIN

The St. Lucie-Okeechobee-Indian River-Martin County Medical Society is the latest addition to the honor roll of 100 per cent paid societies. Dr. J. B. Kollar is president of this society; Dr. R. C. Boothe, vice president; and Dr. A. M. Sample is the secretary-treasurer.

\* \* \*

## TAYLOR

Dr. R. J. Greene is serving as president of the Taylor County Medical Society for 1941. Dr. C. A. O'Quinn is the secretary-treasurer.

\* \* \*

## VOLUSIA

Col. L. R. Poust, medical officer from Camp Blanding, was guest speaker at a meeting of the

Volusia County Medical Society, held on the evening of March 11 at the Halifax District Hospital, Daytona Beach. Col. Poust pointed out the need for additional physicians and nurses at Camp Blanding, stating that while 100 physicians are needed, only 67 are now on duty. The nurses' quota at Blanding is 240 but only 76 are now available.

The Society voted unanimously to ask the State Board of Health to make a survey of health conditions in Volusia County as the first step toward establishing a full time health unit in the county.

\* \* \*

## WASHINGTON-HOLMES

A meeting of the Washington-Holmes County Medical Society was held at Vernon on March 27. An excellent dinner and a good program were enjoyed by those who attended.

## ADVERTISERS' NOTES

## SUMMER DIARRHEA IN BABIES

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the 24-hour formula and replaced with 8 level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. Please send for samples to Mead Johnson & Company, Evansville, Indiana.

## LILLY EMPLOYS A SUPER-MICROSCOPE

Two years before the Lilly plant was founded, Edward Bausch completed the manufacture of the first microscope in the western hemisphere. It soon became an essential piece of laboratory apparatus for study and research in the pharmaceutical industry. But there have remained many living and non-living things that could not be seen—micro-organisms that cause diseases like measles, mumps, and poliomyelitis; and the structure of particles of matter of especial interest to physicists, chemists, and kindred scientists.

The reason that the optical microscope cannot reveal these smaller objects has been due to limitations of light itself. Further advances have now been made and electrons have come to man's aid in the extension of his vision. This wave length is but a minute fraction of a light wave, and with the electron microscope direct magnifications of 10,000 to 30,000 are attained, and photographic enlargements to 100,000 and even 200,000 times are possible.

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## ANNUAL CONVENTION

The ladies attending the annual Medical Convention held in Jacksonville, April 28, 29, and 30, were delightfully entertained by their hostesses, the members of the Auxiliary to the Duval County Medical Society.

The business meeting of the Woman's Auxiliary was held in Parlor B of the Roosevelt Hotel with the president, Mrs. Gordon H. Ira, presiding. Reverend D. H. Rutter, pastor of Snyder Memorial Methodist Church, gave the invocation; Mrs. Victor A. Hughes, president of the Woman's Auxiliary to the Duval County Medical Society, gave the welcoming address, and Mrs. W. J. Barge of Miami gave the response.

A memorial service presented by Mrs. L. C. Ingram, past president of the State Medical Auxiliary, honoring the memory of those who had passed away since the last convention, was most impressive.

Reports from the various officers, committee chairmen and the county presidents indicated a very extensive program of activities accomplished during the year. The president's report was outstanding and reflected a great deal of credit to the state of Florida.

The following officers were installed by Mrs. S. M. Copeland, a past president of the State Medical Auxiliary: Mrs. W. J. Barge, Miami, president; Mrs. F. W. Krueger, Jacksonville,

first vice-president; Mrs. R. L. Cline, Lakeland, second vice-president; Mrs. Paul Kells, Miami, corresponding secretary; Mrs. C. H. Murphy, Bartow, recording secretary-treasurer; Mrs. M. J. Flipse, Miami, Historian, and Mrs. L. C. Ingram, Orlando, parliamentarian.

Committee chairmen: Mrs. Clyde Anderson, St. Petersburg, Archives; Mrs. John H. Owens, Jacksonville, Bulletin; Mrs. T. C. Kenaston, Cocoa, Exhibit; Mrs. Gordon H. Ira, Jacksonville, Finance; Mrs. P. J. Manson, Miami, Hygeia; Mrs. E. M. Hendricks, Ft. Lauderdale, Legislation; Mrs. R. L. Cline, Lakeland, Organization; Mrs. S. M. Copeland, Jacksonville, Press and Publicity; Mrs. F. W. Krueger, Jacksonville, Program; Mrs. Rupert Stovall, Ft. Lauderdale, Public Relations, and Mrs. George C. Tillman, Gainesville, Student Loan.

The social activities included a lovely luncheon in the Rainbow Room of the George Washington Hotel on Monday which was well attended. Corsages marked the places. A floor show and program of delightful music was the only feature of entertainment.

The cabaret dinner given in the Japanese room of the Windsor Hotel on Monday evening was a big surprise to everyone. The floor show demonstrated the unusual talent of the men in costume. A well planned musical program climaxed an evening of fun.

A luncheon at the Yacht Club on Tuesday was also well attended. Each table was centered with a beautiful arrangement of Iris representing a single bouquet which, when torn apart, became a lovely corsage for each person.

A garden tour was made on Wednesday morning followed by a luncheon at the Jacksonville Woman's Club at 1 o'clock. A motorcade in the afternoon to the Jacksonville Air Base was a real treat to those attending the convention.

(Registration at Convention, page 620)

\* \* \*

### DADE COUNTY

Mrs. H. A. Barge, president of the Dade County Medical Auxiliary, reports a number of activities undertaken by this group.

At the last quarterly meeting of the auxiliary plans were completed for the second annual Health Day program which was given in April;

Mrs. Colquitt Pearson, Health chairman, was in charge. Mrs. C. Dunaway, Library chairman, stated that \$150.00 will be donated to the Jackson Memorial Hospital Library for the purchase of current medical magazines needed in the Library. Systematic aid has been given the T. B. ward.

Four auxiliary meetings a year are held with an average attendance of 30. Each meeting is followed by a luncheon and a musical program arranged by the program chairman, Mrs. W. A. Haggard.

New members received at the last meeting were: Mrs. Charles Clay, Mrs. Charles Lister, Mrs. Harold Rand, Mrs. J. O. W. Rash and Mrs. Robert Mayer.

## INDEX TO VOLUME XXVII

Absorption of Quinine into the Cerebrospinal Fluid of the Fetus in Utero	487
Abstract Department—Briefs of articles by:	
Ahmann, Chester F., Gainesville, et al	104
Bippus, William E., West Palm Beach	256
Bryans, Herbert L., Pensacola	256
Burbacher, Charles R., Coral Gables, et al	152
Carson, Russell B., Orlando, et al	44
Coplan, M. M., Miami, et al	46
Dyrenforth, Lucien Y., Jacksonville, et al	104
Hobbs, Laura M., Miami, et al	576
Hollender, A. R., Miami Beach	44
Holmes, Roy J., Miami, et al	46
Jelks, Edward, Jacksonville	152
Kushner, Alexander, Miami	464
Lyerly, J. G., Jacksonville	104, 574
McConnell, Whitman C., St. Petersburg	420
Marks, Meyer B., Miami, et al	202
Morris, Kenneth A., Jacksonville, et al	104
Needles, Robert J., St. Petersburg, et al	574
Orr, Louis M., Orlando, et al	44
Phillips, Kenneth, Miami	576
Sams, Wiley M., Miami	202
Snyder, John W., Miami	46
Weiland, Arthur H., Coral Gables, et al	152
Woods, E. Bryant, Tampa	256
Woods, Frank M., Miami, et al	46
Youmans, Iva C., Miami, et al	576
Acute Cholecystitis	283
Aftermath of Coronary Occlusion	182
Age, Old (edit)	519
Alcoholism: Treating the Problem Drinker (abst)	420
Altitude and Climate in the Treatment of Hypertension and Myocardial Failure	233
A. M. A. Broadcasts (edit)	248
A. M. A. Needs a New Charter	627
Anemia, Nutritional, and its Prevention (abst)	104
Anesthesia	191
Anesthetic (Caudal) in Proctologic Surgery, Metycaine	331
Annual Convention, Jacksonville (edit)	568, 624
Aortitis, Productive, with Multiple Aneurysms in a Child (abst)	202
Applications to Present Papers at Annual Meeting, Jacksonville	303
Arthritis, Atrophic, Review of the Treatment of	551
Arthritis, Neisserian, Treatment with Special Reference to Intradermal Therapy	396
Association Represented at U. S. P. Convention (edit)	37
Asthma, Bronchial: Garlic an Occupational Factor in the Etiology of	86

Atabrine Therapy (Experimental) in Granuloma Inguinale	15
A Young Doctor Looks at Socialized Medicine	23
Backalgia; Low Back Pain	89
Basic Science Law Found Constitutional in Arkansas	355
Bile Duct, Common, Massive Dilatation of; Presentation of a Case with Report of Autopsy (abst)	152
Bladder, Chemical Cystitis Causing Fibrotic Contraction of; Treated by Suprapubic Dilatations	341
Bladder, Tumors of, Statistical Study of Present-Day Methods in Treatment of (abst)	44
Bleeding Lesions of the Gastrointestinal Tract, Early Recognition of	13
Bone Formation, an Evaluation of Wolff's Law (abst)	464
Books Received:	
A. M. A.: Accepted Foods and Their Nutritional Significance	104
A. M. A.: Annual Reprint of the Reports of the Council on Pharmacy and Chemistry	258
A. M. A.: Graduate Medical Education in the United States; Continuation Study for Practicing Physicians, 1937 to 1940	206
A. M. A.: New and Nonofficial Remedies, 1940	204
Boas, Ernest P.: The Unseen Plague; Chronic Disease	204
Bodansky, Meyer: Biochemistry of Disease	52
Cabot, Hugh: The Patient's Dilemma; Quest for Medical Security in America	52
Cole, Lewis Gregory: Pneumoconiosis (Silicosis); The Story of Dusty Lungs	106
Commission on Graduate Medical Education: Graduate Medical Education	152
Davis, W. D.: Ten Years in the Congo	106
Davison, W. C.: The Compleat Pediatrician	206
Feder, J. M.: The Essentials of Applied Medical Laboratory Technic, with Details of How to Build and Conduct a Laboratory in Hospital or Office at Small Cost	104
Foster, George S.: Trapping the Common Cold	104
Kahn, Samuel: Psychological and Neurological Definitions and the Unconscious	206
Knopf, Adolphus: Modern Medicine in the United States: Past Achievements and Solution of Present Day Problems	52
Kuglemass, I. Newton: The Newer Nutrition in Pediatric Practice	106
Lord, Frederick T.; Robinson, Elliott S., and Heffron, Roderick: Chemotherapy and Serum Therapy of Pneumonia	206
Morton, Rosalie Slaughter: A Doctor's Holiday in Iran	152
New York Academy of Medicine: The March of Medicine	204
Youmans, John B.: Essentials of Diagnostic Examination	52
Botulism; Its Treatment	400
Brain and Spinal Cord, Electrosurgery of (abst)	574
Brain, Tumors of, in Children	287
Branchial Cleft Fistulas, Report of 2 Cases	500
Breast Fed Baby, Management of, Including Immunization Procedures	229
Broadcasts, A. M. A. (edit)	248
Bronchial Asthma; Garlic, an Occupational Factor in the Etiology of	86
Bundles for Britain (edit)	409
Bursitis About the Shoulder (abst)	152
Caldwell-Luc Operations, Comparison of Roentgenologic and Operative Findings in 78	453
Cardiac Mechanism, Terminal, in Coronary Artery Disease (abst)	574
Carotid Sinus Syndrome, Hyperactive	403
Chemical Cystitis Causing Fibrotic Contraction of Bladder; Treated by Suprapubic Dilatations	341
Children, Tumors of Brain in	287



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Cholecystitis, Acute	283	Garlic; an Occupational Factor in the Etiology of Bronchial Asthma	86
Chorea, Rheumatic, in a Negro	399	Gastrointestinal Diseases and their Relation to Focal Infection (abst)	256
Chronic Empyema	391	Gastrointestinal Tract, Early Recognition of Bleeding Lesions of	13
Climate and Altitude in the Treatment of Hypertension and Myocardial Failure	233	Governor, Our New (edit)	353
Comparison of Roentgenologic and Operative Findings in 78 Caldwell-Luc Operations	453	Graduate Medical Education, Florida in Vanguard of Progress (edit)	568
Convention Echoes	621	Granuloma Inguinale, Experimental Atabrine Therapy in	15
Convention, Jacksonville (edit)	458, 624	Growing Need for Neurologic Training (edit)	569
Cooperative Roentgenotherapy	240	Hand, Infected	296
Coronary Artery Disease, Terminal Cardiac Mechanism in (abst)	574	Harris, Seale, our Guest of Honor	518
Coronary Disease, the Electrocardiogram in	455	Hematuria as a Result of Sulfanilamide Therapy; Report of 2 Cases	562
Coronary Occlusion, Aftermath of	182	Hemorrhage of the Ovary, Spontaneous	75
Coronary Occlusion, Observations on	177	Hemorrhagic Nephritis Complicating Impetigo Contagiosa	73
Correlating History, Clinical and Electrocardiographic Findings in the Diagnosis of Coronary Occlusion	180	Hernia, Inguinal; an Analysis of 204 Operations	140
Councilors' Reports	410	Herniation of the Intervertebral Disk	491
Cryptorchidism, an Evaluation of the Treatment of	437	Hyperactive Carotid Sinus Syndrome	403
Cystitis, Chemical, Causing Fibrotic Contraction of Bladder; Treated by Suprapubic Dilatations	341	Hypertension, Essential, Surgical Treatment of	188
Death Notices (see Obituaries)		Hypertension and Myocardial Failure, Climate and Altitude in the Treatment of	233
Delegates and Committee Chairmen, Notice to (edit)	519	Ileus, Paralytic, and Congenital Renal Deformity (abst)	104
Dental Hygiene in Pregnancy (abst)	256	Immunization Procedures, the Breast Fed Baby	229
Dental Infections; Role of Streptococcus in Some; A Study of Residual Areas (abst)	576	Impetigo Contagiosa Complicated by Hemorrhagic Nephritis	73
Dermatitis, Occupational, due to Mint (abst)	202	Impetigo, Staphylococcus Toxoid in	549
Devitalized Tooth; a Factor in Ophthalmology	448	Increased Premium for Liability Insurance (edit)	626
Diathermy (Short Wave) in Treatment of Nasal Sinusitis (abst)	44	Index of Advertisements	362
Dilatation, Massive of the Common Bile Duct; Presentation of a Case with Report of Autopsy (abst)	152	Index to Authors	642
District Meetings "A", "B", and "C" (edit)	96	Indications for Fever Therapy in Syphilis (abst)	576
District Meetings "D", "E", and "F" (edit)	198	Individualism in Medicine (edit)	36
Dues, Members in Service (edit)	624	Industrial Health Congress to Discuss Defense Problems	302
Early Recognition of Bleeding Lesions of the Gastrointestinal Tract	13	Infantile Paralysis, First Annual Medical Meeting of National Foundation for (edit)	353
Electrocardiogram in Coronary Disease	455	Infected Hand	296
Electrosurgery of the Brain and Spinal Cord (abst)	574	Infection of the Nasal Accessory Sinuses in Children	127
Emergency Procedures in General Practice	84	Inguinal Hernia; an Analysis of 204 Operations	140
Empyema, Chronic	391	Injuries, Major, Management of	346
Endocrinology of Menstruation; Review of Recent Literature	79	Injuries, Minor, Treatment of	349
Epilepsy from the Neurological Standpoint (abst)	104	Insurance, Increased Premium (edit)	626
Esophagus, Cervical, Perforation of (abst)	46	Intervertebral Disk, Herniation of	491
Essential Hypertension, Surgical Treatment of	188	Intradermal Therapy in Treatment of Neisserian Arthritis	396
Ethical Interrelationships of the Physician	591	Irregular Practitioners to be Investigated (edit)	354
Eugenic Sterilization in Florida	87	Irregulars Convicted	570, 625
Evaluation of Treatment of Cryptorchidism	437	Isolated Myocarditis	137
Evaluation of Wolff's Law of Bone Formation (abst)	464	Jacksonville Annual Convention (edit)	458, 568, 624
Examinations for Appointments in Medical Corps of U. S. Navy (edit)	409, 626	Jacksonville, the Convention City	508
Exanthem Subitum (Roseola Infantum)	547	Jones, Walter C., our President (edit)	621
Excretory Function of the Small Intestine in Renal Insufficiency	565	Kidney Infections as a Result of Obstruction	144
Exhibit, the Technical	520	Levin and Wangenstein Tubes, Use of	344
Experimental Atabrine Therapy in Granuloma Inguinale	15	Lobar Pneumonia; a Review of 147 Cases	335
Faculty for Ninth Annual Short Course for Doctors	569	Low Back Pain	30
Fecundity in the Male, Urologic Determination of (abst)	46	Low Back Pain, Backalgia	89
Fetus in Utero, Absorption of Quinine into the Cerebrospinal Fluid of	487	Management of the Breast Fed Baby, Including Immunization Procedures	229
Fever Therapy in Syphilis, Indications for (abst)	576	Management of Major Injuries	346
First Annual Medical Meeting of the National Foundation for Infantile Paralysis (edit)	353	Massive Dilatation of the Common Bile Duct; Presentation of a Case with Report of Autopsy (abst)	152
Fistulas, Branchial Cleft; Report of 2 Cases	500	Medical Licenses Granted	98, 356
Florida in Vanguard of Progress in Graduate Medical Education (edit)	568	Medical Man and the Florida Workmen's Compensation Act	69
Florida Section, Southeastern Surgical Congress	37	Medical Meetings are Open to Military Doctors	199
Florida Workmen's Compensation Act and the Medical Man	69	Medical Preparedness: Another Reason for the Need of a Medical Coordinator (edit)	150
Focal Infection, Relation to Gastrointestinal Diseases (abst)	256	Boards of Appeals	301
Formulary, Bureau of Professional Relations, School of Pharmacy, G'ville (Correspondence)	38	Chairmen, State	97
		Committees, Florida	199
		Dues of Members in Service (edit)	624
		Examinations for Appointments in the Medical Corps of U. S. Navy	409, 626



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1. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," Am. J. Syph., Gon. & Ven. Dis., 23, 201 (March), 1939.

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Functions of A. M. A. Preparedness Committee....	97	Strickland, J. A., St. Petersburg .....	522, 629
Health and Medical Committee Announces its Subcommittees (edit) .....	247	Wilson, Cullen B., Sarasota .....	522, 629
Industrial Health Congress to Discuss Defense Problems .....	302	Obstetrics, a Summary of Ten Years' Practice in... ..	557
Local Board Appointments, Selective Service (edit) .....	247	Obstruction, Kidney Infections as a Result of .....	144
Medical Advisory Boards .....	302	Occlusion, Coronary, the Aftermath of .....	182
Medical Officers Needed (Correspondence) .....	249	Occlusion, Coronary, Correlating History, Clinical and Electrocardiographic Findings in the Diagnosis of .....	180
Medical Officers Needed for Permanent Positions (edit) .....	300	Occlusion, Coronary, Some Observations on .....	177
Medical Preparedness (edit) .....	36, 197	Occupational Dermatitis Due to Mint (abst) .....	202
Medical Preparedness Questionnaire Returned by Almost 80,000 (edit) .....	151	Old Age (edit) .....	519
Physicians Needed for Army Service (edit) .....	96	Ophthalmology; the Devitalized Tooth a Factor in... ..	448
Recommendations of Doctors for Board Assignments Selective Service in Florida .....	301	Osteopaths May be Barred from Use of Hospital, Supreme Court Rules (edit) .....	300
State Chairmen .....	97	Otologic Progress .....	130
Medicine, Individualism in (edit) .....	36	Our New Governor (edit) .....	353
Medicine, Public Health and Local Government .....	279	Ovary, Spontaneous Hemorrhage of .....	75
Medicine, Socialized, a Young Doctor Looks at .....	23	Pain, Low Back .....	30
Meetings:		Pain, Low Back; Backalgia .....	89
Convention (edit) .....	568	Paralytic Ileus and Congenital Renal Deformity (abst) .....	104
Districts "A", "B", and "C" (edit) .....	96	Peptic Ulcers Associated with Pituitary Tumors .....	503
District "A" .....	252	Perforation of Cervical Esophagus (abst) .....	46
District "B" .....	253	Physicians Needed for Army Service (edit) .....	96
District "C" .....	254	Pituitary Tumors, Peptic Ulcers Associated with .....	503
Districts "D", "E", and "F" (edit) .....	198	Pneumonia, Lobar; a Review of 147 Cases .....	335
District "D" .....	306	Postgraduate Medical Course, Florida (edit) .....	568
District "E" .....	307	Faculty for .....	569
District "F" .....	308	Preconvention Meeting (edit) .....	408
Georgia Pediatric Society .....	248	Pregnancy, Dental Hygiene in (abst) .....	256
National Foundation for Infantile Paralysis (edit) .....	353	Preparedness for National Defense (see Medical Preparedness)	
Preconvention (edit) .....	408	President's Address .....	591
Southeastern Surgical Congress, Fla. Section .....	37	Proceedings of Sixty-Eighth Annual Meeting .....	597
Southern Psychiatric Assn. ....	252	Proctologic Surgery, Metycaine as a Caudal Anesthetic in .....	331
Specialty Societies .....	627	Productive Aortitis with Multiple Aneurysms in a Child (abst) .....	202
State Board of Medical Examiners .....	98, 356	Program of the Sixty-Eighth Annual Meeting .....	510
Menstruation, Endocrinology of; Review of Recent Literature .....	79	Public Health, Medicine and Local Government .....	279
Metabolism, Water .....	133	Pylonephritis; Recent Improvements in Treatment .....	18
Metycaine as a Caudal Anesthetic in Proctologic Surgery .....	331	Quinine Absorption into the Cerebrospinal Fluid of the Fetus in Utero .....	487
Mint, Occupational Dermatitis due to (abst) .....	202	Registration at 68th Annual Meeting .....	618
Myocardial Failure and Hypertension, Climate and Altitude in Treatment of .....	233	Renal Deformity, Congenital, and Paralytic Ileus (abst) .....	104
Myocarditis, Isolated .....	137	Renal Insufficiency, Excretory Function of Small Intestine in .....	565
Nasal Accessory Sinuses in Children, Infection of .....	127	Report of Two Cases of Branchial Cleft Fistulas .....	500
Nasal Sinusitis, Short Wave Diathermy in Treatment of (abst) .....	44	Reports of Councilors .....	410
National Defense (see Medical Preparedness)		Responsibility of the Individual to his Local State and National Societies (abst) .....	256
Nephritis, Hemorrhagic, Complicating Impetigo Contagiosa .....	73	Review of the Treatment of Atrophic Arthritis .....	551
Neurologic Training, Growing Need for (edit) .....	569	Rheumatic Chorea in a Negro .....	399
New State Health Officer (edit) .....	408	Roentgenologic and Operative Findings in 78 Caldwell-Luc Operations .....	453
Notice to Delegates and Committee Chairmen (edit) .....	519	Roentgenotherapy, Cooperative .....	240
Nutritional Anemia and its Prevention (abst) .....	104	Roentgen Therapy in Nonmalignant Disease .....	442
Obituaries and Death Notices:		Role of Roentgen Therapy in Nonmalignant Disease .....	442
Adams, George Elbert, Jacksonville .....	38, 40	Role of Streptococcus in Some Dental Infections; a Study of Residual Areas (abst) .....	576
Baltzell, Nicholas A., Marianna .....	303, 357	Role of the Unrecognized Typhoid Carrier in the Transmission of Typhoid Infection .....	242
Burns, Van William, Stuart .....	356, 414	Roseola Infantum: Exanthem Subitum .....	547
Eckman, Benjamin F., Miami .....	99, 100	Scientific Program, 1941 (edit) .....	197
Foy, William E., Ft. Pierce .....	570, 630	Serologic Tests for Syphilis, Study to Evaluate (edit) .....	37
Freeman, Albert H., Ocala .....	411, 414	Short Wave Diathermy in Treatment of Nasal Sinusitis (abst) .....	44
Haggard, William A., Miami .....	628, 630	Shoulder, Bursitis About the (abst) .....	152
Hannum, Montgomery M., Eustis .....	303, 357, 462	Sinus, Hyperactive Carotid, Syndrome .....	403
Holmes, Roy J., Miami .....	249, 305	Sinuses, Nasal Accessory, in Children, Infection of .....	127
King, Seeber, Lake Butler .....	459, 629	Sinusitis (Nasal) Short Wave Diathermy in Treatment of (abst) .....	44
Knox, Arthur W., Sanford .....	570, 631	Socialized Medicine, a Young Doctor Looks at .....	23
McCreary, Albert B., Jacksonville .....	411, 414	Some Observations on Coronary Occlusion .....	177
Melville, Edmond J., St. Petersburg .....	303, 358	Southeastern Surgical Congress, Florida Section .....	37
Mitchell, Lucien B., Tampa .....	459, 462		
Moor, F. Clifton, Tallahassee .....	459, 460		
Perkins, Herman, Panama City .....	249		
Puleston, Fred, Daytona Beach .....	249, 251		
Quina, Marion Ernest, Pensacola .....	38, 102		
Spearman, M. W., Lake City .....	40		
Stevens, Ralph Edwin, Chattahoochee .....	40, 310		



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Specialty Societies	627
Spinal Cord and Brain, Electrosurgery of (abst)	574
Spontaneous Hemorrhage of the Ovary	75
Staphylococcal Septicemia Treated with Sulfamethylthiazole, a Case of	451
Staphylococcus Toxoid in Impetigo	549
State Board of Medical Examiners	98, 356
State Dues, Members Military Service (edit)	624
State Health Officer, New (edit)	408
Statistical Study of Present-Day Methods Used in the Treatment of Tumors of the Bladder (abst)	44
Sterilization, Eugenic, in Florida	87
Streptococcus in Some Dental Infections; a Study of Residual Areas (abst)	576
Study to Evaluate Original Serologic Tests for Syphilis (edit)	37
Sulfamethylthiazole, a Case of Staphylococcal Septicemia Treated with	451
Sulfanilamide Therapy, Hematuria as a Result of; Report of 2 Cases	562
Summary of Ten Years' Practice in Obstetrics	557
Suprapubic Dilations in Treatment of Fibrotic Contraction of Bladder, Caused by Chemical Cystitis	341
Supreme Court Rules Osteopaths May be Barred from Use of Hospitals (edit)	300
Surgery, Traumatic, in a Small Hospital	31
Surgical Treatment of Essential Hypertension	188
Syphilis: a Few General Considerations	25
Syphilis, Indications for Fever Therapy in (abst)	576
Syphilis, Study to Evaluate Original Serologic Tests for (edit)	37
Technical Exhibit, the	520
Terminal Cardiac Mechanism in Coronary Artery Disease (abst)	574
Thoracoplasty Program at the Florida Tuberculosis Sanatorium	385
Tooth, the Devitalized; a Factor in Ophthalmology	448
Traumatic Surgery in a Small Hospital	31
Treating the Problem Drinker (abst)	420
Treatment of Minor Injuries	349
Treatment of Neisserian Arthritis with Special Reference to Intradermal Therapy	396
Tuberculosis Sanatorium (Fla.), Thoracoplasty Program at	385
Tumors of the Bladder, Statistical Study of Present-Day Methods in Treatment of (abst)	44
Tumors of the Brain in Children	287
Tumors (Pituitary), Peptic Ulcers Associated with	503
Typhoid Infection, Role of the Unrecognized Typhoid Carrier in Transmission	242
Ulcers, Peptic, Associated with Pituitary Tumors	503
Urologic Determination of Fecundity in the Male (abst)	46
Use of Wangenstein and Levin Tubes	344
U. S. P. Convention, Association Represented at (edit)	37
Uterus Bicornis Unicollis	236
Venereal Disease Control	147
Vertigo	293
Violations of Medical Practice Act (edit)	625
Wangenstein and Levin Tubes, Use of	344
Water Metabolism	133
Wolff's Law of Bone Formation, Evaluation of (abst)	464
Woman's Auxiliary:	
Annual Convention	633
The "Bulletin"	154, 208, 468
District Meetings	260, 312
Hygeia Contest	316
In Memoriam, Mrs. W. H. Spiers	422
National Auxiliary Meeting	108, 468
Publicity, Suggestions Regarding	364
Workmen's Compensation Act (Fla.) and the Medical Man	69
Young Doctor Looks at Socialized Medicine	23



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## INDEX TO AUTHORS

Bates, T. H., Lake City	349
Bird, D. Paul, Lakeland	233
Black, M. E., Clearwater	400
Bowen, Fred H., Jacksonville	500
Bowie, Clyde F., Leesburg	144
Bradley, James A., St. Petersburg	344
Britt, Reddin, St. Augustine	84
Brown, Alan, Jacksonville	15
Bucy, Paul C., Chicago	287
Campbell, E. B., St. Petersburg	565
Cason, T. Z., Jacksonville	180
Chamberlain, E. C., Ft. Lauderdale	137
Cumming, Richard C., Ocala	23
Davis, Julius C., Quincy	283
Davis, T. Hartley, Bradenton	396
DeVilbiss, Lydia Allen, Miami	87
Dowlen, L. W., Miami	79
Dyrenforth, Lucien Y., Jacksonville	487
Fowler, W. O., Orlando	385
Graves, A. Judson, Jacksonville	503
Gray, Charles M., Tampa	240
Gray, Frank D., Orlando	346
Guerra, J. J., Tampa	341
Hahn, Theodore F., DeLand	549
Hanson, Karl B., Jacksonville	335
Haverfield, W. Tracy, Jacksonville	287
Henson, Graham E., Jacksonville	86
Highsmith, G. F., Arcadia	147
Hodes, Philip J., Philadelphia	503
Hoffman, James M., Pensacola	30
Jewett, Eugene L., Orlando	89
Kingsbury, L. H., Orlando	385
Kirklin, B. R., Rochester, Minn.	13
Knowlton, R. H., St. Petersburg	177
Kundert, Palmer R., Orlando	437
Levin, Alfred G., Miami	442
Lilly, George D., Miami	188
Lischkoff, M. A., Pensacola	130
Lyerly, J. G., Jacksonville	491
McCreary, A. B., Jacksonville	279
McNay, Miller O., St. Petersburg	453
Mentzer, Claude G., Miami	331
Mock, A. E., Pensacola	296
Murphree, W. E., Gainesville	25
Needles, Robert J., St. Petersburg	403
Nichol, E. Sterling, Miami	182
Nickle, M. A., Clearwater	293
Nugent, James J., Miami	18
Orr, Louis M., Orlando	437
Palmer, Bascom H., Miami	448
Palmer, Henry E., Tallahassee	73
Panzer, Ralph P., Jacksonville	335
Pollard, Cash B., Gainesville	487
Pound, J. H., Tallahassee	451
Preston, Edwin P., Miami Beach	133
Quicksall, J. Braden, St. Petersburg	191
Quillian, Warren W., Coral Gables	127
Robertson, Don C., Orlando	140
Rowell, John P., St. Petersburg	551
Rudolph, Councill C., St. Petersburg	547
Saslaw, Milton S., Miami	399
Scott, E. Laurence, Ocala	69
Smith, Harry B., Tavares	242
Snyder, John W., Miami	236, 391
Stewart, Franz, Miami	455
Taylor, H. Marshall, Jacksonville	487
Thomas, William C., Gainesville	557
Turberville, J. S., Century	75, 591
von Meysenbug, Ludo, Daytona Beach	229
Webb, C. C., Pensacola	296
Weil, Nathan, Jr., Jacksonville	562
Zeagler, George M., Palatka	31

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	Taylor *Davis, Lafayette	Ralph J. Greene, M.D. Perry	Charles A. O'Quinn, M.D. Perry	Last Friday 8:00 P. M.	7	5	B-4-'42 Alva T. Cobb, M.D. Gainesville
B	Alachua *Bradford, Gilchrist Union	J. Lee Sumterlin, M.D. 1 Bald Bldg. Gainesville	J. Maxey Bell, Jr., M.D. 333 W. Main St., S. Gainesville	2nd Wednesday 7:30 P. M.	29	17	
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E	F						F-12-'43 W. Duncan Owens, M.D. Miami Beach

# Are the Neuritic Symptoms of Pregnancy *due to a deficiency* of vitamin B<sub>1</sub> (thiamine)?

**S**UCH common neuritic symptoms of pregnancy as pains in arms and legs, muscle weakness, and (less frequent but more serious) paralysis of the extremities may result from a shortage of antineuritic vitamins, recent investigations appear to show. Although neuronitis of pregnancy has long been considered a toxemia, no toxins have ever been identified.

Clinical observations of Strauss and McDonald lead to the conclusion that the condition is a dietary deficiency disorder similar to beriberi, caused by lack of vitamin B<sub>1</sub>. They report recovery in their cases receiving this therapy, including dried brewers' yeast.

## *Hyperemesis as Cause of Avitaminosis*

Wechsler observes that all cases of polyneuritis of pregnancy recorded in the literature were preceded by long periods of severe vomiting. "It would seem," he adds, "that because of actual starvation these patients suffered from avitaminosis and consequent neuritis," a view likewise held by Hirst, Luikart, and Gustafson. Plass and Mengert observe that the practice of giving high carbohydrate feedings for hyperemesis gravidarum is still more likely to cause avitaminosis.

Dried brewers' yeast, as it is far richer than any other food in vitamin B<sub>1</sub> (thiamine), is being used with benefit both in the prevention and treatment of polyneuritic symptoms of pregnancy. Lewy found that additions of yeast to the diet reduced electric irritability of the peripheral nerves and brought clinical improvement. Vorhaus states that he and his associates, after administering large amounts of vitamin B<sub>1</sub> (thiamine) to 250 patients having various types of neuritis, including that of pregnancy, observed in about 90% of cases "varying degrees of improvement, i.e., from partial relief of pain to complete disappearance of all symptoms."

## *Need for Vitamin B<sub>1</sub> (thiamine) in Lactation*

Evans and Burr, Hartwell, Sure and co-workers, and Maey *et al* are among numerous authorities who find that the nursing mother also needs a supplement of vitamin B<sub>1</sub> (thiamine) from 3 to 5 times the normal requirement. It is accepted that during pregnancy and lactation the requirement for vitamin G (riboflavin) is increased.



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